The Review of International Organizations (2024) 19:269–305
https://doi.org/10.1007/s11558-023-09506-3

Cooperation between international organizations: Demand, supply, and restraint

Diana Panke[1] · **Sören Stapel**[1]

Accepted: 9 August 2023 / Published online: 22 September 2023

Abstract

Regime complexity characterizes the international system, as many international organizations (IOs) overlap in membership and competencies at the same time. Unmanaged overlaps endanger the effectiveness of IOs. Inter-organizational cooperation can mitigate such negative consequences. However, a novel dataset reveals that not all overlapping IOs cooperate with each other and the institutionalization of cooperation agreements varies. Why do some but not all overlapping IOs opt for cooperation agreements, and why do their designs vary? The analysis of a demand–supply–restraint model shows that increased exposure to overlaps creates a demand for IOs to reach cooperation agreements and for their strong institutionalization. States respond more favourable to the supply of cooperation agreements when they are used to international cooperation and internal authority-delegation. The restraint component underscores that IOs are less inclined to cooperate when ideological differences and power differentials between them are greater and that IOs choose highly institutionalized cooperation agreements when their ideological differences are limited.

Keywords Regime complexity · International organizations · Overlap · Negative externalities · Interorganizational cooperation · Design of cooperation agreements · Demand–supply restraint model · Comparative analysis

Responsible editor: Axel Dreher

The order of authors is chosen alphabetically.

✉ Sören Stapel
soeren.stapel@politik.uni-freiburg.de

Diana Panke
diana.panke@politik.uni-freiburg.de

[1] Seminar für Wissenschaftliche Politik, Albert-Ludwigs-Universität Freiburg, Belfortstraße 20, 79085 Freiburg i. Br., Germany

1 Introduction

Over the last decades, the number of international organizations (IOs) has grown. Many of these IOs are overlapping as they bring together a similar set of states and have identical policy competencies at the same time (Pratt, 2018). This phenomenon is known as regime complexity (Alter & Meunier, 2009; Alter & Raustiala, 2018; Eilstrup-Sangiovanni & Westerwinter, 2022). Regime complexity has become a fundamental feature of international politics and global governance that is likely to remain (Abbott, 2012; Keohane & Victor, 2011). Despite the opportunities and benefits it can bring, regime complexity can lead to forum shopping and free-riding behavior among member states, resulting in the duplication of activities and waste of resources, and may also lead to rules, norms, or activities that are incompatible or mutually harmful (Urpelainen & Van de Graaf, 2015; Panke & Stapel, 2018a; Yeo, 2018; Hofmann, 2019; Eilstrup-Sangiovanni, 2022).[1]

IOs that overlap with respect to member states and policy competencies at the same time risk delimited effectiveness, but can also counteract potentially negative externalities arising from regime complicity and realize positive synergies when they enter *inter-organizational cooperation agreements* (Aris et al., 2018; Brosig, 2020; Clark, 2021).[2] Although cooperation is a way of addressing regime complexity, some but not all overlapping IOs conclude cooperation agreements. Moreover, the *design of inter-organizational cooperation agreements* varies. Whereas some sign formal and binding treaties, others opt for less binding memoranda of understanding or establish informal cooperative relationships (Gest & Grigorescu, 2010; Biermann, 2015; Avant & Westerwinter, 2016; Pratt, 2018; Uji, 2022). Agreements often differ in scope; they may cover only one specific issue or a broad range of policy areas (Betts, 2010; Hofmann, 2009). IOs can also specify different instruments in their cooperation agreements, ranging from non-intrusive ones, including information sharing and mutual consultation, to more intrusive ones, such as joint decision-making and joint implementation (e.g., Betsill et al., 2015; Betts, 2012; Gutner, 2022). The degree of institutionalization captures how binding, encompassing, and deep the cooperation is, and

[1] For instance, in 2015, during a violent conflict at the border between Venezuela and Columbia, Venezuelan armed forces were wounded by Columbian smugglers and paramilitary groups. Venezuela responded by closing its borders and deporting undocumented Columbians. The Organization of American States (OAS) and the Union of South American Nations (UNASUR) have competencies in the policy fields of security and good governance (Stapel, 2022) and also share twelve member states, including Venezuela and Columbia. However, neither organization intervened due to the diverging preferences of the concerned parties with regard to the institutional venue for talks. As Nolte (2018: 144) observed, "The conflict and the humanitarian crisis at the Colombian-Venezuelan border would have justified an intervention by the OAS (or by UNASUR). The mutual blockade resulted in the watering down of normative standards and in rule ambiguity."

[2] The cooperation agreements between European Union (EU) and the Arctic Council (AC) provide an illustration, as they sought to avoid "possible duplication" as a negative side-effect of regime complexity and, at the same time, "maximize the use of the available human and financial resources in the region, ensuring that they are used in the most effective way" to benefit from synergies (AC-EU 2006, see also Panke & Stapel, 2023).

is important not the least since several scholars highlighted that institutionalization is essential for the effectiveness of cooperation on the ground (e.g., Abbott et al., 2000, Gray & Slapin, 2012, for diverging assessments, see e.g., Goldstein & Martin, 2000, Lutz & Sikkink, 2000).[3] Although agreement designs can make a difference in practice, we do not yet know why some overlapping IOs opt for highly institutionalized cooperation agreements, while others choose to design their cooperation in a shallow manner.

Despite the growth in regime complexity and the associated risk of reduced effectiveness of governance beyond the nation-state (Panke & Stapel, forthcoming-a), we lack systematic information about the likelihood of IO cooperation and the design of such cooperation. Accordingly, this paper addresses *two research questions*: Why do some but not all overlapping IOs establish cooperation agreements with each other? How can variation in the institutionalization of inter-organizational cooperation designs be explained?

To answer these questions, Section 2 empirically maps the establishment of cooperation agreements between overlapping IOs as well as their institutional designs We base our analysis on regional IOs.[4] Our dataset covers the period between 1945 and 2020 for the subset of 73 IOs with regional membership and entails 10,461 observations of overlapping IO dyads, which share at least one member state and are equipped with at least one identical policy competency at the same time. Theoretically, we introduce a demand–supply–restraint model from which expectations regarding the establishment as well as the design of inter-organizational cooperation agreements are derived (Section 3). Section 4 outs the theory, namely the hypotheses

[3] For instance, the 2011 cooperation agreement between the Asia-Pacific Economic Cooperation (APEC) and the Association of Southeast Asian Nations (ASEAN) is rather shallow, as it is non-binding, covers only three policy areas (economy, environment, and health) and includes only an information-sharing instrument. Thus, its practical effect was rather limited. By contrast, the 1992 cooperation agreement between the OAS and the Caribbean Community (CARICOM) is highly institutionalized, as its form is binding, the scope is broad and covers all areas of common interest including the promotion of democracy and good governance, and the instruments include joint implementation. The OAS-CARICOM case illustrates that the institutionalization of cooperation can make a difference on the ground when IOs choose to make use of the full possibilities provided by their agreement. When civil unrest erupted following the 2000 elections in Haiti, which reinstalled Jean Bertrand Aristide as president, the 1992 agreement was not put to use to address the issue. Only in 2011 did the OAS and CARICOM make use of their strongly institutionalized cooperation instruments and jointly implemented measures. Most notably, they created a Joint Electoral Observation Mission, which was a new form of collaboration between the two IOs. The assistant secretary general of the OAS, Ambassador Ramdin, deemed the mission "more effective" (OAS, 2010), as it helped strengthen democracy and electoral processes on the ground, albeit only for a short period of time.

[4] While global IOs, defined as institutionalized cooperation between three or more states based on primary law and supported by a secretariat or a headquarter office, are open to all states, regional IOs limit their membership based on geographic considerations. As a result, regional IOs tend to be smaller than global IOs in terms of member count, which means that they overlap less in terms of membership than global IOs. At the same time, regional IOs are usually general-purpose organizations and, therefore, tend to feature more overlaps with respect to policy competencies than global IOs. Taken together, regional and global IOs do not systematically differ in their exposure to overlaps and are both equally likely to experience the negative consequences of regime complexity. Hence, regional IOs serve as useful cases for studying the prospects for inter-organizational cooperation in general.

of the demand–supply–restraint model, to an empirical test, while the final section concludes with a summary of the broader pattern and main findings as well as implications and generalizations.

The paper makes three arguments. First, it demonstrates that, although initially created to foster cooperation between their respective member states, IOs increasingly cooperate with each other to address potential negative consequences arising from regime complexity. To date, overlapping IOs have entered into 230 inter-organizational agreements, which amounts to 22 percent of all overlapping IOs that we cover in this dataset. Furthermore, the design of inter-organizational cooperation agreements varies with respect to the form of inter-organizational cooperation (formal treaty, memorandum of understanding, informal agreement), the number of different policy areas encompassed in the agreement (scope), and the depth of the incorporated instruments (joint dispute settlement and implementation, joint decision-making, consultation, and information sharing). Over time, the extent to which agreements are institutionalized increases as agreements become more formalized, entail more and stronger instruments and – albeit to a lesser extent – cover an increasing number of different policies.

Second, the emergence of cooperation between IOs can be captured by the demand–supply–restraint model. Most notably, IOs are decreasingly inclined to simply bear negative effects of regime complexity when they are exposed to high overlaps with respect to members and competencies (high demand) and willing to respond to IO agents' offers to cooperate with other IOs (high supply), while ideological and power differences between the organizations are not pronounced (limited restraints). In other words, the likelihood of two IOs entering a cooperation agreement increases the more members and policy competencies they share, the stronger their predisposition towards international cooperation and towards delegation of authority, and the less pronounced the ideological and power differences between them. Under these circumstances, IOs are likely to sign inter-organizational cooperation agreements and thereby turn into active shapers of regime complexity.

Third, with respect to the design of IO cooperation agreements, we show that there is no one-size-fits-all approach. IOs with high numbers of overlapping member states and identical policy competencies tend to be more institutionalized and thus better equipped for tackling challenges emanating from regime complexity together. Also in line with the demand–supply-restraint model, when IO members are accustomed to delegating authority and when two IOs are ideological similar, designs of agreements are increasingly institutionalized and provide formal cooperation in many policy fields on the basis of intrusive instruments. By contrast, neither the inclination toward international cooperation in general (one supply factor), nor the power differences between the IOs (one restraint factor) influence the design of cooperation agreements. Considering the three components of cooperation agreements individually – form, scope, and instruments – reveals some differences. An agreement is more formalized when IOs share more member states and more similar policy competencies, delegate authority, and are similar in ideological terms. Under these conditions, the risk of free-riding or other ways of future defection of one of the cooperation partners is more limited, thus allowing both IOs to take the risk of entering formal agreements. For the scope of cooperation, we find that agreements cover more policy fields when the overlapping IOs not only possess more identical

policy competencies, but are also similar ideologically, and are, therefore, unlikely to disagree over specific policy decisions during the ongoing cooperation. Finally, cooperation agreements between overlapping IOs entail more intrusive instruments when the demand for cooperation is high and when the IOs are more similar in their power. Most importantly, as intrusive instruments reduce the ability for unilateral action of each IO, they include such instruments in cooperation agreements only when the risk that one organization uses its superiority in terms of power to harm the cooperation partner afterwards is limited.

2 Conceptualizing and mapping inter-organizational cooperation agreements

Research on inter-organizational relations has focused on interactions between IOs (Biermann & Koops, 2017a). Several contributions show that cooperation between IOs cannot be taken for granted (Biermann & Koops, 2017b; Lipson, 2017). However, these studies rely on case studies of a few selected IOs (e.g., Eilstrup-Sangiovanni, 2022; Gutner, 2022). In contrast, this paper adopts a comparative perspective and investigates the likelihood of IOs entering into inter-organizational cooperation agreements and the design of those agreements over a long period. In doing so, we exclusively focus on overlapping IOs, namely those sharing at least one member state, whilst having at least one policy competency in common at the same time.

2.1 Empirical basis: inter-organizational cooperation agreements (IOCA) dataset

Regional IOs have fewer overlaps in terms of membership than global IOs due to the fact that they have fewer members. However, regional IOs have more overlaps in terms of policy competencies than global IOs due to their broader range of policy competencies. Since regime complexity is based on the fact that organizations share both member states and policy competencies, regional and global IOs are likely to be equally exposed to regime complexity and, if this complexity is not managed, its negative implications. Thus, we focus on overlapping regional IOs to examine why IOs differ in their willingness to enter into inter-organizational cooperation agreements to address challenges linked to regime complexity and why the designs of such cooperation agreements differ.

The IOCA dataset covers the period 1945 to 2020 and includes all 73 IOs with a regional membership criterion (Panke et al., 2020, see also Table A1 in the Online Appendix available on the *Review of International Organizations*' webpage). The dyadic dataset contains information about the establishment of cooperation agreements as well as the design of cooperation agreements for 437 different pairs of overlapping IOs.

While agreements between IOs are usually in written form (treaties, memoranda of understanding, declarations), they can also be verbal in exceptional instances (informal agreements, gentlemen's agreements). When the latter are aimed at general continual cooperation rather than ad hoc, case-by-case cooperation, they are subsequently put on record, for instance, in the IOs' official documentation or

their press releases. We include all written expressions of intentions to cooperate and those verbal ones for which a paper trail exists as inter-organizational cooperation agreements in our dataset. Hence, we collected data on the establishment of inter-organizational agreements as well as their form, scope, and instruments from a variety of primary sources, such as treaties, protocols, conventions, declarations, joint statements, press releases, and other official documentation. We systematically checked websites of the overlapping IOs and conducted a LexisNexis newspaper search in English, French, German, Russian and Spanish. For triangulation purposes we additionally used internet search engines and contacted the IO headquarter offices. All agreements were subject to computer-assisted double-blind coding with respect to the three design elements (form, scope, instruments) based on detailed coding guidelines. Inter-coder reliability checks showed an accuracy of 84%, and discrepancies were arbitrated by a single senior researcher.

Although created to foster cooperation between their member states (Panke, 2020), the IOCA dataset shows that overlapping IOs also cooperate with each other. In fact, 96 of the 437 different IO dyads in the dataset have established a total of 230 different cooperation agreements between 1945 and 2020.[5] Thus, there are a total of 10,461 observations of overlapping IO dyads and 1,750 dyad-year observations with cooperation agreements. On average, overlapping IOs establish agreements after 11.75 years – if they cooperate at all. While some pairs cooperated already in the same year in which an overlap emerged for the first time (e.g., Black Sea Economic Cooperation (BSEC) and Commonwealth of Independent States (CIS)), it took the African Union (AU) and the Lake Chad Basin Commission (LCBC) a total of 51 years after they overlapped for the first time to establish a cooperation agreement. If IOs take five or more years after the overlap emerged before they enter into cooperation agreements, it is most likely that they did so in order to manage the negative externalities from duplicated competencies and membership that have materialized over time. By contrast, when IOs cooperate with each other once the overlap emerges or immediately afterwards, there was not much time for both IOs to get active in the overlapping fields according to which negative side-effects from regime complexity are less likely to have occurred. Thus, these IOs can be expected to cooperate in order to obtain benefits from managing regime complexity or preventively seek to avoid future costs emanating from overlaps.

2.2 The likelihood of inter-organizational cooperation agreements

The IOCA dataset contains information on the existence of inter-organizational cooperation agreements between IOs in a given year. An agreement is coded as existing when two IOs specify the form of collaboration in which they seek to engage (e.g., a treaty), the policy fields in which they will collaborate (e.g., climate change and sustainable development), or an instrument (e.g., consultations). If none

[5] Of the 96 cooperating IO dyads, 58 entered into several agreements. On average, the longevity of the first agreement of these 58 cooperating IO dyads is 6.3 years before a second agreement is passed. With respect to agreement designs, IO dyads tend to incrementally introduce additional elements (e.g., policy competencies, instruments) in subsequent agreements.

of these aspects are mentioned in the official sources or if two IOs are linked only via official development aid, their relationship cannot be considered to be covered by a cooperation agreement in the respective dyad-year. Hence, concerning the establishment of cooperation agreements, overlapping IOs are coded with 1 when they have entered into an agreement with each other and with 0 otherwise, while dyads without overlap are coded as missing values.

Figure 1 illustrates the number of overlapping IO dyads over time and the trajectories of cooperation to address potential negative side effects of unmanaged overlap. The first agreement, the 'Protocol concerning Relations between the European Coal and Steel Community (ECSC) and the Council of Europe (CoE)', was signed in 1951. However, regime complexity and inter-organizational cooperation agreements remained limited until the late 1980s, but from 1995 onward, both the number of overlapping dyads and the number of cooperating dyads increased strongly. For instance, the Arab Maghreb Union (AMU) and the Economic Community of West African States (ECOWAS) have overlapped since 1989, as Mauritania was a member of both IOs, which had four competencies in common. They signed a cooperation agreement in 1996. By contrast, the Mercado Común del Sur (Mercosur) and the OAS have overlapped since 1994, yet they have not entered into an inter-organizational cooperation agreement to date. Figure 1 also shows that toward the end of the observation period, the number of overlapping dyads stabilized at around 398, while the instances of inter-organizational cooperation continued to increase to 86 in 2020. Overall, about 22 percent of the overlapping dyads have established inter-organizational cooperation agreements.

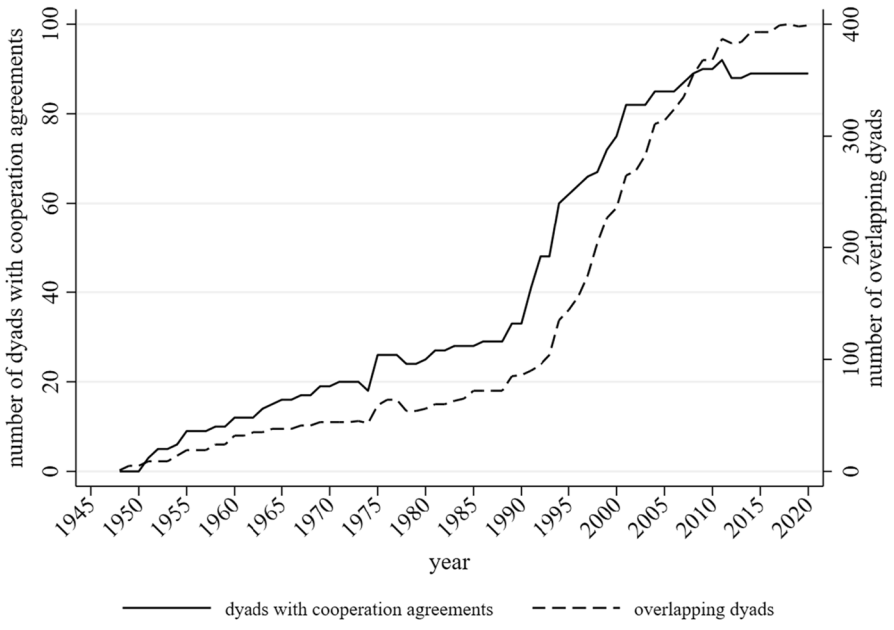

Fig. 1 Overlapping dyads with cooperation agreements

2.3 The components of inter-organizational cooperation agreements: form, scope and depth

The IOCA dataset also captures the design of inter-organizational cooperation agreements. Scholarship on the institutional design of IOs has emphasized a variety of aspects. Design characteristics determine who participates, the policy fields in which they have competency, how authority is organized and distributed with respect to decision-making, implementation and enforcement of IO outputs, and their bindingness. Membership and policy scope determine which states participate in and benefit from cooperation and in what areas cooperation can take place (Acharya & Johnston, 2007; Goodin, 1995; Hooghe et al., 2019; Koremenos et al., 2001; Panke et al., 2020). In addition, previous research has examined how accessible IOs are to non-state actors, such as NGOs and other transnational actors (Grigorescu, 2020; Tallberg et al., 2014). In their operations, IOs differ in the extent to which states retain, share, or delegate authority, conceptualized as centralization, pooling, and delegation (Abbott et al., 2000; Hawkins et al., 2006; Hooghe & Marks, 2015; Koremenos et al., 2001). In addition, IOs can be distinguished according to the type of output and outcome they can produce (Goodin, 1995; Sommerer et al., 2021). They also differ with regard to how binding the rules are, which has led scholars to focus on their obligation, formalization, precision, and flexibility (Abbott et al., 2000; Acharya & Johnston, 2007; Baccini et al., 2015; Debre & Dijkstra, 2021; Koremenos et al., 2001).

Drawing on this literature allows to examine how IO dyads design inter-organizational cooperation agreements to mitigate negative externalities arising from overlaps. We capture how the design of inter-organizational cooperation is institutionalized by focusing on three characteristics: form, scope, and depth of instruments. These three features determine how binding cooperation is for both IOs, the policy fields in which they seek to cooperate, and the measures they envisage using. The institutionalization of one or more of the three features serves to stabilize expectations about future behavior and to address and manage the potential negative consequences of regime complexity. In other words, when agreements are more formalized (binding treaties), involve deep instruments (joint implementation), and encompass a broad array of policy fields, we assume that the actors involved are unlikely to default on agreements, as the costs of defection become higher.

Form The form of cooperation is similar to obligation in the legalization literature (Abbott et al., 2000) and formalization in the rational design literature (Dijkstra, 2017). In this paper, we distinguish between different forms of cooperation agreements and code them according to their level of formality (Roger, 2020). Treaties are binding and highly formalized with respect to goals and sometimes procedures (coded with 3). The level of obligation is lower in memoranda of understanding (MoUs) and declarations of intent, which are also written but less formalized than treaties and mainly express intentions to cooperate (coded as 2). Finally, simple arrangements or gentleman's agreements between two IOs are informal in character (coded as 1).

Scope We follow the institutional design and regionalism literatures in assessing the scope of policy fields covered by an agreement (Dijkstra, 2017; Hooghe et al., 2019). Following Panke et al. (2020), we distinguish between eleven policy fields that may be included in a cooperation agreement. These are agriculture, development, economy, energy, environment, finance, good governance, health, migration, security, defense, technology, and infrastructure. The scope of cooperation can take a value between 0 (none of the eleven fields) and 11 (all policy fields). In instances when the cooperation document does not specify the policy areas, we code the number of overlapping policy fields in the dyad in a given year.

Depth Most IOs include instruments for rule-making, implementation, and dispute settlement. This feature captures "the extent to which states and other actors delegate authority to designated third parties" (Abbott et al., 2000: 415; Gutner, 2022). We differentiate between four types of cooperation instruments and rank them according to their ability to limit an IO's freedom to act unilaterally, ranging from joint implementation and/or dispute settlement (4), joint decision-making (3), consultation (2), to information sharing (1). If an inter-organizational cooperation agreement does not specify any instrument, it is coded as 0. In the case that a cooperation agreement details more than one instrument, we include the instrument with the highest value.

The three dimensions of cooperation agreements – form, scope and depth – are conceptually distinct and can vary empirically.

Some IOs have highly formalized cooperation agreements that are limited in scope and rely on shallow instruments. The 2003 'Agreement between the European Union (EU) and the North Atlantic Treaty Organization (NATO) on the Security of Information' and the 'Cooperation Agreement' between the ECOWAS and the AMU of 1996 are highly formalized (3), cover only a single policy issue (1), and stipulate the consultation instrument (2). In contrast, the highly formalized (3) 'Acuerdo de Cooperación' between the General Secretariats of the OAS and Andean Community (ANDEAN) of 1998 covers seven different policy areas (scope 7) and encompasses provisions on joint dispute settlement (4).

Inter-organizational cooperation can also be formalized to a moderate degree (2). The Memorandum of Understanding Between Secretariat of Conference on Interaction and Confidence Building Measures in Asia (CICA) and Secretariat of Integration Committee of the Eurasian Economic Community (EAEU) of 2008 includes eight policy fields (8) and specifies joint implementation as an instrument of deep cooperation (4). Another example of a moderately formalized cooperation agreement is the 'Acuerdo de Cooperación entre la Secretaria General de la Organización de los Estados Americanos [OAS] y la Secretaria General de la Asociación Latinoamericana de Integración (ALADI) en el Area de la Comunicación e Información' of 1994, which does not mention any policy fields (unspecified scope) and includes only information sharing as an instrument.

Some overlapping IOs cooperate in a less formalized manner (1). For instance, the 'Plan of Action for the Implementation of the Great Green Wall for the Sahara and Sahel Initiative' between the AU and the Community of Sahel–Saharan States

(CEN-SAD), which was concluded in 2009, is not strongly formalized (1), covers three policy areas (3), and specifies the instrument of joint implementation (4). Furthermore, Decision No. 637 of the OSCE regarding 'Enhanced Co-operation between the Organization for Security and Co-operation in Europe (OSCE) and the Council of Europe (CoE)' of 2004 is not highly formalized (1), covers three issue areas (scope 3), and does not specify any instruments (0).

2.4 The institutionalization of inter-organizational cooperation design

We capture the overall institutionalization of inter-organizational cooperation design with a compound indicator that measures the extent to which cooperation between IOs is institutionalized based on the three dimensions form, scope, and depth. The dimensions differ in range, as the scope can vary between 0 and 11, whereas form can take values between 1 and 3, and depth ranges between 0 and 4. Therefore, we normalize the values of the form, scope, and depth of instruments by calculating their respective percentages to grant equal weight to each dimension in the compound indicator. In a second step, we calculate the sum of all three components and divide them by three. A single IO cooperation agreement has a maximum value of 100 when the cooperation is highly formalized (treaty), the scope is extensive (11 policy fields covered), and the depth of instruments is significant (joint implementation and/or joint dispute settlement). When IO dyads introduce more than one cooperation agreement over the years, we add the values of these individual agreements together (for a similar approach, see Tallberg et al., 2014).[6] In fourteen instances, an inter-organizational cooperation agreement explicitly replaced a previous agreement between the two IOs concerned, in which case, we consider only the newer version.[7]

$$\text{Institutionalization of inter-organizational cooperation design} = \sum \frac{\text{form} + \text{scope} + \text{depth}}{3}$$

Hence, the institutionalization takes the value 0 if no cooperation has been established. Conceptually, there is no upper limit since a dyad can reach a maximum of 100 for each individual cooperation agreement, and the number of agreements is unlimited. Empirically, institutionalization varies between 0 and 640.1515.

[6] Adding the values of individual agreements together can result in one and the same policy area and instrument being covered multiple times. However, this does not introduce bias into the compound indicator institutionalization of inter-organizational cooperation design. Since negotiating and implementing inter-organizational cooperation agreements is resource intensive, agreements do not simply reiterate identical commitments from previous agreements but add nuances. For instance, the CIS and CSTO have concluded multiple agreements that address security issues (scope). Yet, these agreements focus on different aspects of security, namely the "military component of collective security" (CIS and CSTO 2001) and "challenges and threats of a terrorist and/or extremist nature" (CIS et al., 2018). In addition, it is also possible that cooperation agreements between two IOs tackle one and the same policy area but rely on different instruments.

[7] Examples include the 2005 'Cooperation Agreement between the Committee of the Regions and the Congress of Local and Regional Authorities of the Council of Europe' between the EU and the CoE, which was revised in 2018, and the 2010 Addendum to the 1994 Agreement about Cooperation Relations between the General Secretariats of the OAS and the Central American Integration System (SICA).

At one end of the spectrum, IOs overlap but do not cooperate at all, for instance, the League of Arab States (AL) and the Common Market for Eastern and Southern Africa (COMESA). At the other end, the highest value captures inter-organizational cooperation between the AL and the AU since 2019. These two organizations have signed fourteen different agreements over the study period (for summary statistics, see Table A2).

Figure 2 illustrates that in contrast to the highly institutionalized cooperation between the AL and the AU, the design of cooperation can also be shallow, as in the case of Mercosur and the Union of South American Nations (UNASUR). The individual components can also vary. Whereas the depth takes higher values than form and scope in agreements between the Collective Security Treaty Organization and the Shanghai Cooperation Organization, the CoE and the EU, and the Pacific Islands Forum (PIF) and the Pacific Community (SPC), depth is less pronounced in the design of cooperation between ANDEAN and the OAS and between Mercosur and UNASUR.

Figure 3 shows that the average institutionalization of cooperation between IO dyads increased over time. Institutionalized cooperation was limited in the first decades of the period. However, since the 1980s, institutionalization has incrementally increased from about 30 to 144 by 2020. Along with the considerably stronger institutionalization of inter-organizational cooperation during this period, the number of overlapping dyads and the number of cooperating IO dyads has also increased substantially (see also Fig. 1).

In sum, as regime complexity has become more pronounced over time, IOs have increasingly sought to address its potential negative consequences by entering into inter-organizational cooperation agreements, which have also become increasingly institutionalized. However, we must acknowledge that not all IOs

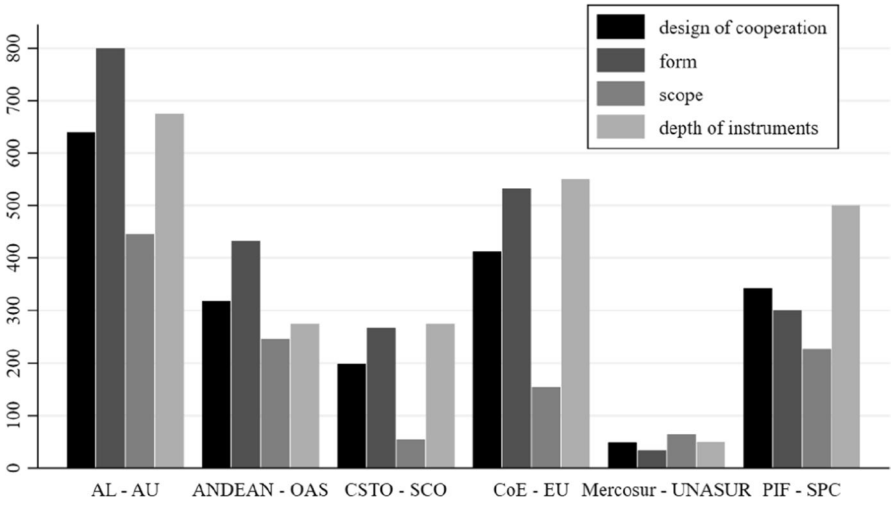

Fig. 2 Cooperation design components for selected dyads in 2020

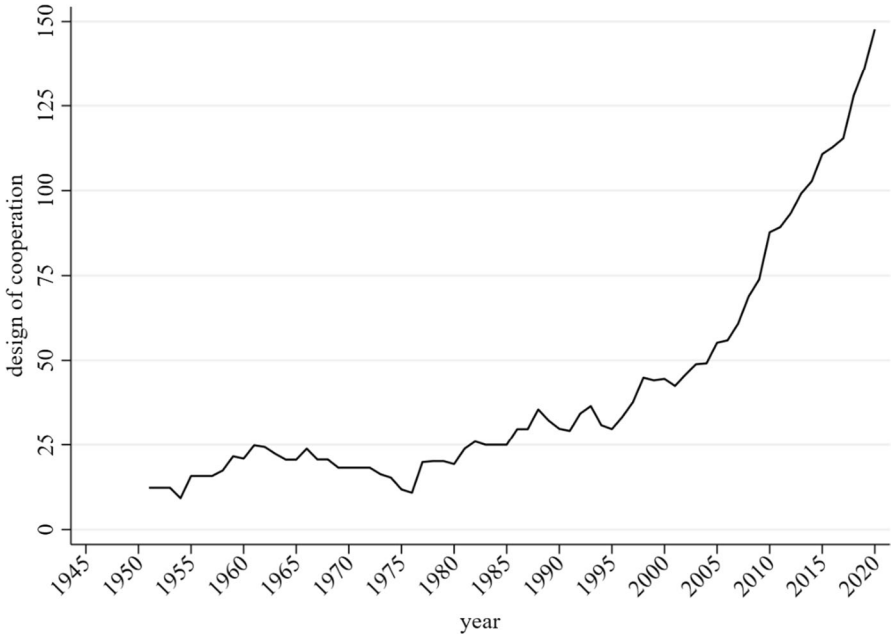

Fig. 3 Institutionalization of inter-organizational cooperation, mean 1945–2020

with overlapping member states and policy competencies address potential problems through cooperation. Hence, it remains puzzling why some dyads enter into cooperation agreements, while others refrain. Similarly, the empirical variation calls for an explanation of why some dyads opt for highly institutionalized inter-organizational cooperation agreements, whereas other overlapping IOs choose rather shallow forms of cooperation.

3 A demand–supply–restraint model of inter-organizational cooperation

State-of-the-art research has contributed valuable insights into specific cooperation activities of selected IOs. However, we do not know much about the formal bases of such activities, namely inter-organizational cooperation agreements. It remains an open question why some overlapping IOs enter into such agreements, while others refrain. Moreover, systematic investigations into how cooperation agreements are designed and what factors influence design choices are lacking.

We introduce a model that captures demand, supply, and restraint factors to explain the likelihood of IOs entering into inter-organizational cooperation agreements and the degree to which such agreements will be institutionalized (see Fig. 4). We take into consideration the fact that IOs are multilevel systems and therefore entail member states and IO agents (e.g., general secretariats) as actors. Both of these play important roles when setting up inter-organizational

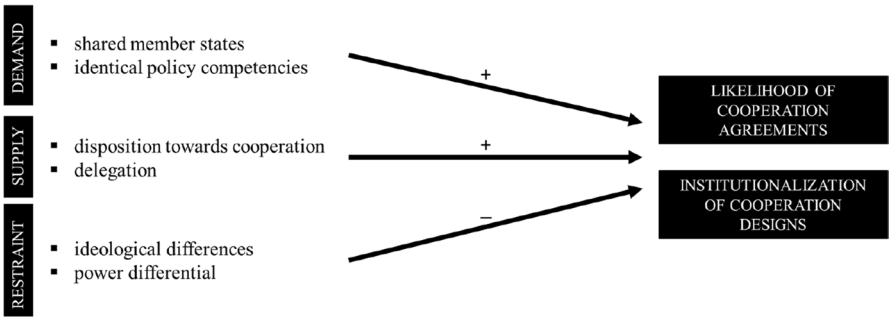

Fig. 4 Demand–supply–restraint model

cooperation agreements. The demand for cooperation captures structural features that influence the cost-related calculations of IOs and state actors who push for inter-organizational cooperation. The supply component captures whether IO actors, as agents, succeed in pulling member states, as principals, into cooperation, which is influenced by the predispositions of the latter. Finally, the restraint component captures forces that hold state and IO actors back from cooperation by focusing on the (in-)compatibilities between the concerned IOs.

In the context of increasing regime complexity, not all pairs of IOs are equally exposed to potential costs arising from overlap. The *demand* for inter-organizational cooperation becomes greater as the costs of unmanaged overlaps between two IOs increase. If two IOs have both common members and similar policy competencies, this can have negative consequences (Gebhard & Galbreath, 2013; Gómez-Mera, 2015). However, IO and state actors from both sides can work together to avoid the costs associated with unmanaged overlaps or benefit from synergies.

Free-riding, forum shopping, outright defection, and non-compliance of individual member states can all generate potential costs for the two IOs and their members (e.g., Busch, 2007; Henneberg & Plank, 2020; Hofmann, 2019). These costs are likely to be higher for IO dyads that share more members, creating a demand for inter-organizational cooperation to which the IO and state actors of both organizations can respond in order to avoid negative externalities from unmanaged overlap or take advantage of synergies. The more member states overlap in a dyad, the more likely cooperation is between the two affected IOs. Overlap also affects the demand for highly institutionalized cooperation designs. The risk of defection by individual states and the associated costs for the remaining actors increase with increasing member state overlap and can best be reduced by highly institutionalized inter-organizational cooperation agreements, which can be binding or allow for compliance monitoring (Koremenos et al., 2001).

A similar logic can be applied to the number of overlapping mandates. The higher the number of identical policy competencies of two IOs, the higher the potential negative externalities resulting from the duplication of efforts, resource requirements, and potentially incompatible or contradictory IO policies and activities (e.g.,

Bond, 2010). This creates a demand for cooperation between IOs. In addition, the costs associated with increasing competency overlap can best be avoided when IOs enter into highly institutionalized inter-organizational cooperation agreements that entail elements such as a binding form. Highly institutionalized designs reduce the risk of future defection (Abbott et al., 2000).

Taken together, two demand hypotheses can be derived: The stronger the demand for cooperation due to shared members (H1a) or identical competencies (H1b) in a dyad, the greater the likelihood of an inter-organizational cooperation agreement and the more institutionalized the design of inter-organizational cooperation is likely to be.

The second part of the model captures the *supply* side, which captures whether opportunities for inter-organizational cooperation as offered by IO secretariats as agents are taken on by the member states as principals. In IOs, delegation "is designed to overcome issue cycling, sustain credible commitments, provide information that states might not otherwise share and, in general, reduce the transaction costs of decision making" (Hooghe & Marks, 2015: 307). Over time, agents seek to enhance their influence via-a-vis principals (Abbott & Snidal, 2010; Hawkins et al., 2006; Pollack, 1997). Negotiating and concluding inter-organizational cooperation agreements promises to boost the autonomy of general secretariats or chairpersons as agents in IOs. However, they can only offer a supply of cooperation agreements while the member states as principals need to ultimately agree (Biermann, 2015; Margulis, 2021). Whether the members accept such cooperation supplies depends on their predispositions.

On the international level, states differ in the extent to which they are embedded in wider institutional structures (Abbott & Snidal, 1998; Keohane, 1984). When they have joined many IOs over time, states are likely to have a generally positive disposition toward cooperation and tend to value international cooperation (Hurd, 2017; Rittberger et al., 2012). Compared to the ones that are hardly embedded in the wider institutional structure, states with previous membership in many IOs are more likely to respond positively when IO agents supply agreements with overlapping IOs. Thus, the likelihood that two IOs will enter into a cooperation agreement increases with high levels of international orientation within both IOs. International orientation can also influence the choice of institutional design for cooperation between IOs. States place stronger emphasis on preserving their sovereignty when they are only weakly embedded in international cooperation (Coe, 2019; Hathaway, 2008). Such states tend to prefer less extensive and intrusive institutional designs. Accordingly, two overlapping IOs are more likely to choose deeply institutionalized cooperation agreements when the general predisposition toward international cooperation is high in both IOs.

In addition, member states differ in their wish to preserve their autonomy versus delegating tasks and responsibilities to agents (Hawkins et al., 2006; Hooghe & Marks, 2015). This predisposition also influences how states respond to the supply of inter-organizational cooperation by IO agents. More strongly autonomy-oriented states respond less favorably to inter-organizational cooperation offers because such agreements further reduce their ability to act independently. By contrast, the

chances of fellow member states consenting to such supplies are higher when states are accustomed to internal delegation and thus less strongly focused on protecting their autonomy. Therefore, overlapping IOs are more likely to enter into cooperation agreements when both show high levels of delegation. Furthermore, IO agents find it much easier to push member states toward more demanding institutional designs when they are already accustomed to delegation or transfer of authority. This is in contrast to situations in which IO members are concerned about preserving their autonomy. Such concerns hinder institutionalized cooperation agreements that have a binding form, broad scope, and intrusive instruments. Hence, pairs of IOs can be expected to opt for demanding agreements when both IOs are characterized by internal delegation of authority.

Thus, the two supply hypotheses expect that states' predispositions positively influence their responses to agent's supply of inter-organizational agreements, the more they are used to international cooperation in general (H2a) or to internal delegation (H2b) in a dyad. This applies to the likelihood of an inter-organizational cooperation agreement and the institutionalization of its design.

At the same time, *restraints* also play a role when actors decide whether to enter inter-organizational cooperation agreements and in the design of such agreements. The restraints hindering inter-organizational cooperation become greater the larger the ideological and power differences of the two concerned IOs. Greater incompatibility between two organizations is likely to translate into a reduced willingness to tackle overlaps through cooperation.

When IOs diverge due to ideological differences, the likelihood of cooperation decreases. In such a situation, both parties may be less convinced that they can trust each other enough to cooperate. Should they nevertheless enter inter-organizational agreements, the chances of the agreements being shallow in nature are high, as a lack of trust can prevent agreements with binding rules or intrusive instruments. As a result, IO dyads with major ideological differences are less likely to cooperate and less likely to opt for highly institutionalized cooperation (Clark, 2021).

Moreover, incompatibility between IOs arises when the power differential within a dyad is substantial (Gest & Grigorescu, 2010). In such constellations, the more powerful organization may push for a one-sided arrangement that mainly or only benefits itself, while the weaker partner may have little say in negotiation dynamics and outcomes. As Biermann (2008: 168) noted about such situations, "Asymmetric relations are avoided, for they imply dependence and hierarchy". Thus, the greater the power differential between two organizations, the less likely they are to reach a cooperation agreement. However, if a cooperation agreement is signed despite a large power differential, the agreement is likely to be less institutionalized to allow the more powerful IO to make flexible adjustments that it deems in its interest over time.

Accordingly, the final set of hypotheses focuses on the restraint component of the model: The stronger the restraints for cooperation due to ideological differences (H3a) or the power differential between IOs (H3b) in a dyad, the lower the likelihood of an inter-organizational cooperation agreement and the less institutionalized the design of the inter-organizational cooperation will be.

4 Analysis and discussion

This section empirically investigates the plausibility of the hypotheses derived from the demand–supply–restraint model regarding the likelihood of agreements being signed and the institutionalization of their design. We operationalize the explanatory and control variables, explain the model selection and specifications, and discuss the results of the regression analysis.

The demand hypotheses focus on the extent to which IO dyads overlap with regard to member states (H1a) and policy competencies (H1b). We use time series data for the period 1945–2020, focusing on the number of shared member states and the number of identical policy competencies based on the websites of IOs and their primary law (treaties, treaty changes). The variable *overlapping member states* refers to the number of states that are members of both IOs in a dyad in a given year. The variable *overlapping policy competencies* distinguishes between 344 specific competencies in the eleven policy fields and reflects the number of identical competencies of the IOs in a dyad (Panke & Stapel, forthcoming-b). Descriptive statistics and a correlation matrix are provided in Tables A2 and A3.

The second part of the model theorizes how IO member states react to a supply of cooperation. The hypotheses focus on states' predispositions towards international cooperation (H2a) and delegation (H2b). The assessment of states' stances toward international cooperation at the level of IO dyads consisted of several steps. First, with respect to individual states, we determined their memberships of global IOs on an annual basis as a proxy for their general disposition toward international cooperation. We obtained the necessary information on membership of the 95 global IOs that existed between 1945 and 2015 from the Correlates of War dataset (Pevehouse et al., 2020). We checked the respective IO websites to update the membership information to 2020. Second, we aggregated the state data to the regional IO level by calculating the mean number of global IO memberships of member states for each of the 73 regional IOs for each year (1945–2020). Third, since two IOs are needed for an inter-organizational agreement, we take into account that the IO with the lower predisposition toward international cooperation sets the lower boundaries for a dyad's likelihood of entering into and institutionalizing cooperation. Thus, we used the lower value of the two IOs in a dyad when assessing the plausibility of H2a.

We considered the delegation of authority within an IO to assess state predispositions into delegation (H2b). Hooghe et al. (2019) produced admirable work in conceptualizing and measuring IO authority, yet the Measurement of International Authority (MIA) dataset includes only 35 regional IOs and covers the years 1950–2010. To cover all 73 regional IOs and the entire period of observation (1945–2020), we operationalize state predispositions towards IO delegation by assessing the presence of a court in an IO in a given year. The data was obtained from the ROCO IV database and was extended to additionally cover the period 2015–2020. When aggregating the data to the dyad-year level, we again used the IO with the lower level of delegation to set the lower boundary for a dyad's likelihood of entering into and institutionalizing cooperation. We determined whether both IOs

in a dyad had established a court (coded as 1) or whether one or neither IOs had done so (coded as 0). In addition to this operationalization of delegation, we also ran a robustness check using Hooghe et al.'s (2019) delegation data. To this end, we extrapolated the MIA data from the year 2010 to the years 2011 to 2020 based on the insight from the ROCO 2020 dataset that seven of the 34 regional IOs from the MIA dataset experienced further primary law changes between 2011 and 2020. The robustness check showed that all our findings are robust (see Table A5).

The restraint hypotheses focus on the compatibility or lack thereof of IOs. The independent variables of the two specifications are ideological differences (H3a) and power differentials between IOs (H3b). Concerning H3a, we used the liberal democracy index from the Varieties of Democracy project. The indicator measures the extent to which the ideal of liberal democracy is achieved (including the protection of individual and minority rights, the rule of law, an independent judiciary, effective checks and balances, and the level of electoral democracy). Data is available for the period 1946–2019 (Coppedge et al., 2020). To assess ideological differences between two IOs, we calculated the mean value for each IO and then determined the difference between the IOs. The independent variable of H3b is the power differential between IOs. As there is no data available on the relative power of 73 IOs over a long period of time (1945–2020), we worked with a proxy based on the GDP of member states. Our reasoning is that a greater GDP of IO members translates into a higher IO income based on membership fees, which in turn increases its power to act internally or externally. Thus, we used the GDP of all member states for each IO and year between 1950 and 2019, the data of which stems from the Penn World Table (Feenstra et al., 2015, in billion US dollars, constant 2017). We added up the GDP all member states for each IO and year. On this basis we calculated the power differences between two IOs in each dyad and year.

Furthermore, we included two control variables in the statistical models. First, we controlled for the dyad age of two overlapping IOs, based on the time that they existed next to each other and overlapped. This enabled us to capture potential time trends. Second, we controlled for whether two IOs overlap in a core policy area to capture whether that policy area is highly salient. Therefore, we distinguish whether IOs are oriented toward political issues, security, or economy and welfare. We inferred the core mandate of organizations from their founding treaties and, in some cases, even their names (e.g., ECOWAS).

We are interested in two dependent variables (DVs). The first DV contains dichotomous information on whether two overlapping IOs entered into a cooperation agreement (1) or not (0). The second continuous DV, the institutionalization of a cooperation agreement, has no natural zero and has a right-skewed distribution but approximates a normal distribution when logarithmized. For both variables, we have time series cross-sectional data with the dyad-year as the unit of analysis.

An analysis of the design of cooperation agreements (DV2) presupposes that two IOs have entered into cooperation (DV1). Thus, we opt for a model that simultaneously captures both choices. The Cragg hurdle model combines a selection model that determines the likelihood of cooperation between overlapping IOs (DV1) with an outcome model for the design (DV2). The hurdle regression approach corresponds well to our theoretical framework, according to which the same set of

demand, supply, and restraint variables is expected to influence both the establishment and the design of inter-organizational cooperation. Furthermore, we included dyad dummies to model fixed effects in order to account for the fact that the observations of individual dyads are dependent on each other. We clustered standard errors at the year level.[8]

Since a Cragg hurdle model cannot be specified as a time series model, we also estimated time series cross-sectional models as robustness check (Table A6) and also run this model without time lagged independent variables (Table A7). We used a logit model to test the hypotheses regarding the likelihood of cooperation (DV1). To examine the design of cooperation (DV2), we used a random-effects interval data regression model, which considers that the data is left-censored at 0 as many overlapping IOs have no cooperation agreement with each other (for a similar approach, see Tallberg et al., 2014). In both model specifications, we clustered standard errors for each dyad and lagged the independent and control variables by two years. The robustness check supported our findings with respect to the emergence and design of inter-organizational cooperation, as the covariates mostly retained their significance and remained robust in all instances.

The independent and control variables did not highly correlate and could therefore be incorporated into the same models (see Table A3). The selection part is identical in all models. While Model 1 captures the overall institutionalization of the cooperation agreement in the outcome part, Models 2–4 focus on the form of agreements (Model 2), scope (Model 3), and depth of instruments (Model 4).Table 1 presents the results of the regression analysis. In addition, we calculated the marginal effects for the likelihood of cooperation (Table A8) and the design of cooperation (Table A9). Figure 5 shows the margins calculated at mean of Model 1 for the design of cooperation.

We first discuss the plausibility of the demand, supply, and restraint hypotheses related to the likelihood of cooperation (DV1, selection part of the hurdle model in Table 1) and subsequently focus on the design of cooperation (DV2, outcome part of the hurdle model in Table 1).

The first two hypotheses focus on the structural demand for cooperation. We expect that the greater the exposure the two IOs in a dyad face due to overlapping member states (H1a) and overlapping competencies (H1b), the greater the demand would be for cooperation to avoid negative externalities or manage synergies. The empirical evidence supports the hypothesized relationship with respect to the establishment of cooperation (selection part of the model), as all coefficients point in the expected positive direction and all findings are highly significant. An increasing number of shared member states and similar policy competencies translates into a higher likelihood of these IOs cooperating with one another.

[8] As a robustness check, we also run the Cragg hurdle model in bivariate specifications (see Table A4), which shows that all findings from the multivariate analysis are robust (compare Table A4 to Table 1).

Moreover, we did not opt for a Heckman selection model as the main model, as it does not allow use of the same independent and control variables in the selection and the outcome parts, which is possible in the Cragg hurdle model.

Table 1 Regression analysis – Cragg hurdle models

	Model 1 overall	Model 2 form	Model 3 scope	Model 4 depth of instruments
Outcome part: Inastitutionalization of cooperation agreement				
Number of shared member states	4.181***	7.251***	–2.362***	7.199***
	(1.049)	(1.443)	(0.501)	(1.606)
Number of identical competencies	2.052***	1.924**	2.207***	2.711***
	(0.456)	(0.629)	(0.304)	(0.671)
Disposition towards cooperation	–3.472*	–3.724*	–3.202**	–4.539**
	(1.358)	(1.639)	(1.027)	(1.727)
Delegation	107.282***	187.686***	77.757***	71.866***
	(23.700)	(41.722)	(20.844)	(16.997)
Ideological differences	–104.734**	–125.452*	–156.274***	–87.612
	(38.194)	(54.045)	(24.383)	(59.905)
Power differential	–0.001	–0.001	–0.000	–0.003***
	(0.001)	(0.001)	(0.000)	(0.001)
Control: dyad age	4.997***	6.334***	3.565***	6.795***
	(0.647)	(0.754)	(0.370)	(0.916)
Control: core mandate	5.974	–7.093	16.264**	–7.940
	(6.368)	(9.023)	(5.081)	(8.485)
Constant	–1.617	–19.959	55.634*	–32.429
	(30.044)	(50.129)	(21.882)	(36.840)
Selection part: Likelihood of cooperation agreement				
Number of shared member states	0.073***	0.073***	0.075***	0.073***
	(0.003)	(0.003)	(0.003)	(0.003)
Number of identical competencies	0.013***	0.013***	0.014***	0.013***
	(0.001)	(0.001)	(0.001)	(0.001)
Disposition towards cooperation	0.949***	0.949***	0.965***	0.787***
	(0.028)	(0.028)	(0.028)	(0.029)
Delegation	0.027***	0.027***	0.025***	0.028***
	(0.003)	(0.003)	(0.002)	(0.003)
Ideological differences	–0.921***	–0.921***	–1.085***	–0.839***
	(0.200)	(0.200)	(0.209)	(0.201)
Power differential	–0.000***	–0.000***	–0.000***	–0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
Control: dyad age	0.018***	0.018***	0.018***	0.019***
	(0.001)	(0.001)	(0.001)	(0.001)
Control: core mandate	–0.104***	–0.104***	–0.003	–0.089***
	(0.019)	(0.019)	(0.024)	(0.021)
Constant	–2.548***	–2.548***	–2.636***	–2.627***
	(0.120)	(0.120)	(0.126)	(0.120)
Constant	3.735***	4.041***	3.283***	3.988***
	(0.054)	(0.050)	(0.040)	(0.061)
Obserations	9857	9857	9857	9857
AIC	22439.944	23432.514	19800.465	22283.109
BIC	22871.700	23871.466	20232.221	22707.669

Standard errors in parentheses: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The case of the EU and the CoE provides illustrative evidence for the plausibility of hypotheses 1a and 1b. This pair of IOs is characterized by greater overlap in terms of member states and policy scope over time, which carries potential costs that can be avoided through cooperation. Following the strengthening of the EU's Agency for Fundamental Rights after the competency expansion resulting from the Treaty of Lisbon, a report from the CoE's Parliamentary Assembly noted that "the newly founded agency would undermine the Council of Europe's sphere of authority in the field of human rights protection in Europe by duplicating parts of the work of Council of Europe bodies. Such duplication […] could result in dividing lines within Europe, cause confusion and waste valuable resources" (CoE, 2010: 5). The same report concluded that "[i]n terms of avoiding duplication of work, […] the Council of Europe has signed both a Memorandum of Understanding with the European Union and a Co-operation Agreement with the EC which, to a certain extent, clarify the situation" (CoE, 2010: 14).[9]

The findings for the demand hypotheses fit well to the rationalist cooperation literature, which contends that states not only cooperate in order to realize benefits but also to avoid costs, such as being outcompeted economically or being without allies in case a crisis arises (Axelrod, 1984; Keohane & Nye, 1977; Snidal, 1991). Moreover, "as interdependence increases international cooperation becomes more necessary for the achievement of even primarily domestic goals" (Morse, 1969: 320). The notion that interdependencies between states are best managed through cooperation also travels to overlapping IOs.

The supply side of the model captures how the predispositions of IO member states influence their reactions to cooperation proposals provided by IO agents. For instance, an official of an IO Secretariat reported "what we do is prepare position documents, which we circulate to member states, putting forward recommendations as to what can happen or what should happen. And once we have the approval of the member states, we're able to do a draft Memorandum of Understanding which we exchange, we negotiate with the particular partner. And when we get to almost at the point of concluding the arrangement, then we circulate the draft to all member states to get the agreement to be able to move forward." (interview#2, 10–05-2022). Hypotheses 2a and 2b expect that IO members are more inclined to respond positively to proposals for an inter-organizational cooperation agreement developed by IO agents when the member states' stances towards international cooperation or delegation are more positive in nature. This is supported by the selection models, which robustly feature positive signs for both coefficients that are also highly significant (Models 1–4, Table 1). Thus, the greater the disposition toward international cooperation in general in a dyad, the more likely it is that the overlapping IOs will reach a cooperation agreement (H2a).

[9] Similarly, the OAS and CARICOM responded to potential costs emanating from overlap by establishing cooperation. The 1992 Agreement Between the General Secretariat of the OAS and CARICOM determined that the General Secretariat of the OAS "shall transmit whatever plans it may have for the development of its regional activities in the Member States of CARICOM and shall take into consideration proposals which are made by CARICOM in respect of those plans, with a view to securing effective co-ordination between the General Secretariat and CARICOM and avoiding unnecessary duplication of functions" (CARICOM and OAS 1992, art. 3.2)

For example, the member states of CARICOM and OAS have become more embedded in the wider institutional international system, as they have joined more global IOs over time. This positive stance toward cooperation in general is reflected in six inter-organizational cooperation agreements, which the OAS Secretariat together with its CARICOM counterpart have set up (e.g., CARICOM & OAS, 1992).

Moreover, when the member states of two overlapping IOs are used to delegating authority, they are less resistant to proposals for inter-organizational cooperation (H2b). This relationship is illustrated by the case of COMESA, which has established a court and is made up of member states that are accustomed to the internal delegation of tasks. It cooperates with three IOs that also have established courts: the AU, the East African Community (EAC), and the Southern African Development Community (SADC). However, COMESA also overlaps with a number of IOs that do not feature a court in their organizational structure, including the Intergovernmental Authority on Development (IGAD), the International Conference on the Great Lakes Region (ICGLR), the Indian Ocean Rim Association (IORA), the LCBC, the Gulf of Guinea Commission (GGC), and the Southern African Customs Union (SACU); COMESA did not enter cooperation agreements with any of these organizations.

This suggests that that agency slack has an outlet, which is usually overlooked in principal-agent approaches (Hawkins et al., 2006; Pollack, 1997). Under conditions of regime complexity, IO secretariats and other IO actors with vested interest in expanding their own competencies, can use their roles for the negotiation and implementation of inter-organizational cooperation agreements as a vehicle. Thus, they provide their respective member states as principals with offers to engage in cooperation with other IOs to address overlaps by avoiding negative side-effects and benefitting from synergies. States, in turn, are more inclined to respond positively, when they have previously made good experiences with international cooperation in general (H2a) and when they are used to the delegation of authority (H2b).

Furthermore, the quantitative analysis broadly supports H3a and H3b, according to which incompatibilities of IOs, as restraints, undermine the emergence of inter-organizational cooperation. The selection part of the model shows that larger ideological differences and power differentials between two overlapping IOs reduce the likelihood of inter-organizational cooperation agreements (Models 1–4, Table 1).

Narrative evidence regarding the relationship between the Bolivarian Alliance for the Peoples of our America (ALBA) and the OAS further supports these findings. Both IOs differ considerably with respect to ideology. The anti-capitalist, anti-imperialist, and anti-US stance of ALBA is incompatible with the neoliberal pro-representative-democracy orientation of the OAS. This was manifested, for instance, with respect to alleged irregularities in the 2019 Bolivian elections, about which ALBA declared that its member states "strongly reject the acts of interference in the internal affairs of the Plurinational State of Bolivia committed by the Secretary General of the Organization of American States (OAS), Luis Almagro" (ALBA-TCP, 2021). Similar tensions have hampered the emergence of cooperation agreements and prevented high levels of institutionalization (Cooper, 2017; Weiffen et al., 2013). The finding that ideological orientation amongst IOs matters for the chances to enter into cooperation agreements in the first place fits nicely to constructivist research,

which has evidenced how common values and norms as well as ideological fit of states have operated as catalysts for the emergence of institutionalized cooperation (Checkel, 1998; Risse-Kappen, 1995).

Moreover, in line with H3b, qualitative insights further support the quantitative finding that differences in economic power make the emergence of inter-organizational cooperation less likely. While the AU has not established cooperation with the economically less powerful Gulf of Guinea Cooperation or Council of the Entente, these organizations have concluded many agreements with overlapping organizations that are more compatible in terms of power, such as ECOWAS, SADC, and the EAC. This corresponds to rationalist approaches on international cooperation, which have demonstrated that state power is an important predictor for behavior on the international level (Axelrod & Keohane, 1986; Fearon, 1998; Grieco, 1988; Moravcsik, 1993): they simply are in a better position to influence international negotiation outcomes in line with their own interests compared to weaker states. By contrast, less powerful states rather shy away from entering into cooperation with more powerful ones as they risk being dominated and pressured into conforming to ideas and policies dictated by their counterparts, following Thucydides' dogma that strong states do what they want while small states suffer what they must (Martin, 1992; Mearsheimer, 1994).

We now discuss the plausibility of the demand–supply–restraint hypotheses with respect to the design of inter-organizational cooperation agreements (DV2).

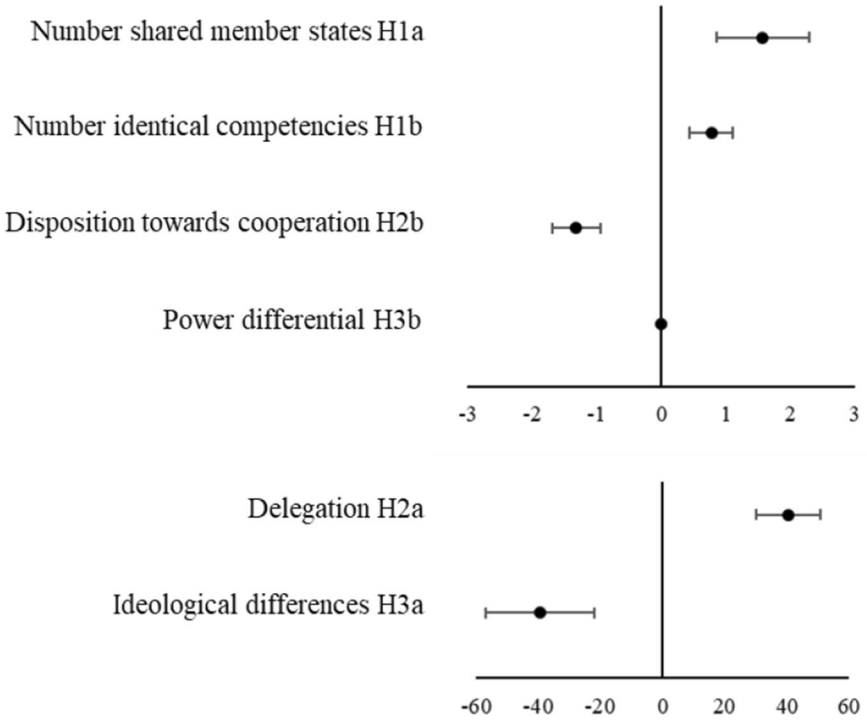

Fig. 5 Margins for the institutionalization of cooperation

Table 1 shows that both demand hypotheses (H1a and H1b) are empirically plausible (Model 1). An increase in demand due to an increasing number of shared member states or policy competencies significantly increases the institutionalization of cooperation agreements. Both variables also have strong marginal effects (Fig. 5). The institutionalization of cooperation increases by 1.246 and 0.73 units with each additional overlapping member state and overlapping competency, respectively. The case of the CIS and the Eurasian Economic Union (EAEU) illustrates this relationship. Since 2000, both IOs have overlapped in terms of member states and competencies. In 2002, they signed their first cooperation agreement. Over time, the number of shared member states increased from five to seven, and identical competencies increased from two to 78. The CIS and the EAEU responded with six additional inter-organizational agreements – in 2010, 2012, 2013, and three in 2018 – to "minimize the negative consequences of duplication of functions" (CIS, 2019). The institutionalization of inter-organizational cooperation increased from 53.03 in 2002 to 267.17 in 2018. While the cooperation between the CIS and the EAEU was considerably less institutionalized than the average agreement between overlapping IOs in 2002 (88.19), it exceeded average by 2018 (128.46). This fivefold increase reflects a shift from a less demanding agreement to more demanding cooperation agreements. Among other changes, the agreements initially only included consultation and information sharing instruments but later also stipulated joint decision-making (2013), joint implementation (2018), and a dispute settlement procedure (2018). Taken together, the findings suggest that IOs are more inclined to cooperate with each other in highly institutionalized agreements, when they are strongly exposed to regional regime complexity in the form of overlaps. Under conditions of increasing overlap, rather than risking negative side-effects, such as duplication of resources or even reduced effectiveness of regional governance (Bond, 2010; Brosig, 2011), IOs turn into active shapers of their destiny. Thus, they engage in inter-organizational cooperation that is strongly institutionalized and, therefore, suited to avoid negative consequences and provide synergies.

In addition, an increase in both types of demands fosters forms of cooperation that are more binding in character (Model 2) and encompass more intrusive instruments (Model 4). With regard to the scope of cooperation agreements, the findings are more nuanced (Model 3). In support of H1b, a greater number of shared competencies corresponded with a greater scope of cooperation agreements. In contrast to H1a, greater member state overlap was associated with a significantly smaller scope of agreement between two IOs (Model 3). This finding may be due to the fact that the scope of a cooperation agreement is de facto delimited by the policy areas each of the IOs individually covers in their treaties. For instance, the EU and NATO share many member states and have expanded over time (Schimmelfennig & Sedelmeier, 2005). However, the increasing number of overlapping members did not increase the scope of their cooperation agreements because NATO maintained a narrow focus on security issues and thus only entered into cooperation agreements with narrow policy scopes.

While the supply hypotheses account for whether overlapping IOs enter into cooperation agreements in the first place, the findings are more mixed and more nuanced with respect to the institutionalization of cooperation agreements. The

empirical analysis shows that the coefficient for the IO's general disposition toward cooperation does not point in the expected direction and is significant in all four models. Similarly, the marginal effect is negative (Fig. 5). Accordingly, in contrast to H2a, a positive predisposition towards cooperation does not increase the chances that two IOs will opt for a highly institutionalized design of inter-organizational cooperation. The observation that an international orientation pushes member states toward entering cooperation agreements with overlapping IOs but not toward highly institutionalized agreements might be due to interlinkages between both decisions. When IOs in a dyad enter cooperation agreements early on, the member states might prefer to first try a less demanding agreement. Thus, if the dyad does not add more agreements over time, the cooperation will remain shallow, irrespective of whether the IO members are characterized by a strong international embeddedness. An illustrative example is that of the Nordic Council (NC) and the CoE, which began to cooperate in 1955 with a shallow agreement (non-binding form, unspecified scope, and only information-sharing instruments) and never changed the design afterwards despite their member states' growing inclination to cooperate globally.

The second supply factor for the design of cooperation, the disposition toward delegation (H2b), has the expected positive sign and is statistically significant in Model 1 (Table 1). Moreover, the marginal effect is positive and significant. The effect size is very high because the delegation variable is dichotomously coded. When both IOs possess courts, the institutionalization of the agreement design increases by 28.67 points. IOs opt for highly institutionalized cooperation agreements when their member states are already used to IO-internal delegation of authority. For example, the member states of ANDEAN and the OAS are accustomed to delegating authority. They concluded six different cooperation agreements between 1986 and 2011 and increased the institutionalization of their already above-average agreement designs from 73.48 points to 317.93. This reflects a strong move toward more institutionalization over time based on binding agreements covering a wide range of policy issues and specifying joint decision-making instruments. Secretary General Alegrett of ANDEAN stated that "cooperating like this is definitely the only way for us to much more effectively accomplish our goals and objectives" (OAS, 1998). As ANDEAN and OAS members are accustomed to internal delegation, similar arguments by IO agents supplying cooperation opportunities have resonated well and led to highly institutionalized inter-organizational cooperation over time.

The results also support H2b with regard to the three components of agreement design. A greater disposition toward delegation significantly increases the form of cooperation in a dyad (Model 2). Moreover, the supply covariate remains positive and is significant for scope (Model 3) and instruments (Model 4). The CoE and the EU illustrate this relationship. Members of both IOs are familiar with internal authority delegation, as both IOs have their own courts. They passed a total of six cooperation treaties that are more advanced in their form, and these agreements cover six different policy fields and entail all four instruments (information sharing, consultation, joint decision-making, and joint implementation). By contrast, the member states of the Shanghai Cooperation Organisation (SCO) and the Economic Cooperation Organization (ECO) are hardly accustomed to the internal delegation of

authority. Their cooperation remains shallow, as they only share information (instruments) on issues related to economic policy (scope).

Finally, we investigated the role of restraints in the design of inter-organizational cooperation agreements. In support of H3a, dyads with greater ideological differences are less inclined to enter into highly institutionalized agreements (Model 1, Table 1), binding forms of cooperation (Model 2), or cooperation that is broad in scope (Model 3). However, with respect to instruments (Model 4), the covariate is negative but lacks significance. The marginal effect of ideological difference is strong and significantly negative (Fig. 5). Hence, with each unit of change, the chances of a strongly institutionalized agreement design decrease by 40.30 units. The CIS and the CoE differ considerably in ideological terms. The CoE scores higher with respect to democracy than the CIS, which mainly consists of hybrid and authoritarian regimes. This incompatibility hampers institutionalization in terms of form (expression of intent), scope (one specific policy field), and instruments (information sharing, consultation). As a result, the overall design of cooperation between these two overlapping IOs is institutionalized to below average, with a score of 89.90 in 2012 (when the average dyad design score was 112.22). In contrast, the AL and the AU are more compatible in ideological terms, leading to strongly institutionalized cooperation between these organizations. In fact, in the declaratory parts of their cooperation agreements, they explicitly refer to "close mutual ties […] the bonds of fraternity, friendship, good neighbourliness and common destiny of the peoples of both regions" (AL-AU Sirte Declaration 2010) and "solidarity and friendship between our countries" (AL-AU Kuwait Declaration 2013).

Hypothesis 3b focuses on IO power differentials as restraints for the design of cooperation agreements. The empirical analysis shows that a greater difference in power between two IOs does not significantly reduce the extent of institutionalization of their cooperation agreements (Model 1), the choice of treaty form (Model 2), or the scope of the agreement (Model 3). The marginal effect of power differences is also miniscule (-0.0006) and not significant (Fig. 5). Thus, with respect to the institutionalization of the agreement in terms of its form and scope, the null hypothesis cannot be rejected. The first of these unexpected empirical findings suggests that under conditions of high power differentials, weaker IOs have no clear-cut preferences for more flexible forms of cooperation. On the one hand, gentleman's agreements and other less institutionalized forms of cooperation allow less powerful IOs to easily quit– should the more powerful IO dominate in practice. On the other hand, binding treaties or other forms of highly formalized cooperation provide stronger reassurance for the continuation of cooperation according to the terms spelled out in the agreement, and might therefore more beneficial to weaker partners in power-asymmetrical relations. In addition, IOs might also be ambivalent with respect to scopes of agreements under conditions of high power-asymmetries. On the one hand, narrow scopes limit the damage that can emerge for the weaker IO – should the powerful state pursue narrow self-interests over time. On the other hand, broader scopes provide greater prospective benefits of cooperation and render weaker IOs better off in absolute terms compared to cooperation with narrow scopes.

In line with H3b, power differentials have a significant and negative effect on the instruments specified in agreements (Model 4). In other words, the greater the power

differences between two overlapping IOs, the less intrusive are the instruments they rely on when cooperating with each other. Intrusive instruments reduce the ability for unilateral action of each cooperation partner. Hence, overlapping IOs include such instruments in cooperation agreements only when the risk that one organization uses its superiority in terms of power to harm the cooperation partner afterwards is limited.

Demand, supply, and restraint factors individually influence the likelihood of IOs entering into cooperation agreements and the institutionalization of cooperation. However, they may also interact with one another in influencing the design of cooperation agreements,[10] thereby amplifying or hampering the effect of demand, supply, or restraint factors on the outcome variable. Instead of theorizing twelve different interaction effects for the design of inter-organizational cooperation and examining each of the hypotheses in turn, we discuss the interaction effects in an inductive manner and focus on general patterns. Therefore, we did not use the hurdle model, as we were not interested in whether IOs concluded an agreement. Instead, we used a random-effects interval data regression model to examine differences in the design of cooperation agreements (see Table A6, for a similar approach, see Tallberg et al., 2014) and inserted a two-way interaction term for each combination of demand, supply, and restraint factors. We present interaction plots, allowing for more nuanced insights (Brambor et al., 2005; Jaccard & Turrisi, 2003).

First, high demand and strong supply positively reinforce each other (see Fig. 6). Thus, institutional cooperation designs are more strongly institutionalized when the two IOs overlap substantially with respect to member states or policy competencies and, at the same time, either show a strong positive disposition toward international cooperation or are both characterized by the delegation of authority. An example of this effect is the CoE and the EU, whose overlap in both respects has increased over the years and which are characterized by an internal delegation of authority and a high general predisposition toward international cooperation. The institutionalization of their cooperation agreements increased from informal non-binding cooperation on information sharing and consultation with no specified policy fields in 1951 toward considerably higher institutionalization from 1997 onwards with the signing of a formal treaty and the establishment of joint decision-making in the field of good governance.[11]

The interaction plots also illustrate that limited supply reduces the positive effect of increasing demand on the institutionalization of inter-organizational cooperation agreements. Interestingly, the effect of membership and mandate overlaps on the institutionalization of the inter-organizational cooperation design turns negative for IO dyads in which the predisposition toward international cooperation is extremely low. This suggests that the negative effect of limited international orientation overpowers the positive effect of increased demand for cooperation due to a high number of shared member states and similar policy competencies. Thus, IO dyads whose

[10] The likelihood of cooperation is a binary variable. We, therefore, study interaction effects only concerning the design of inter-organizational cooperation agreements.

[11] Agreement between the European Community and the Council of Europe for the Purpose of Establishing, in Accordance with Article 7(3) of Council Regulation (EC) No 1035/97 of 2 June 1997 Establishing a European Monitoring Centre on Racism and Xenophobia, Close Cooperation between the Centre and the Council of Europe.

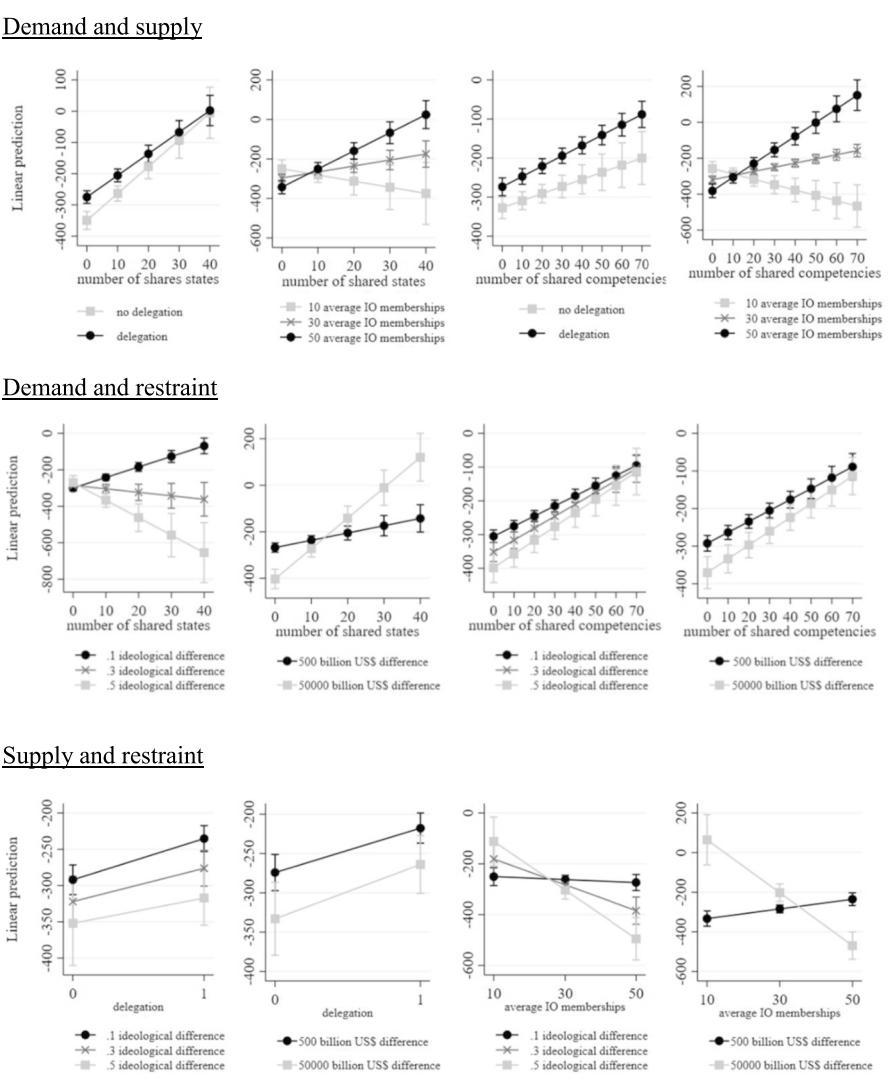

Fig. 6 Interaction effects for the institutionalization of inter-organizational cooperation design

members are hardly used to international cooperation in general tend to opt for designs that are informal, non-binding, do not entail intrusive instruments, and cover only a limited scope.

Second, demand and restraint factors also interact. For dyads with strong restraints limiting cooperation – in the form of stark ideological differences or a large power differential – the positive effect of demand on the institutionalization of inter-organizational cooperation is reduced. Accordingly, the more heterogeneous the two IOs in a dyad, the more likely they are to opt for less ambitious agreements than the demand factors alone would predict. In the extreme case, the effect of an

increasing number of shared member states on the institutionalization of cooperation turns negative for dyads with very strong ideological differences.

Third, the picture is more nuanced with respect to the last set of interaction effects. Most importantly, an increase in either of the restraining factors reduces the positive effect of the delegation of authority, as a supply factor, on the design of inter-organizational cooperation agreements. In other words, if ideological or power differences between both IOs in a dyad prevail, they are likely to opt for less institutionalized cooperation than the delegation of authority alone would predict. However, this does not apply to the second supply factor, the positive predisposition towards international cooperation in general. On its own, an increase in IOs' general predisposition toward international cooperation does not lead to more institutionalized designs. Similarly, the interaction plot shows that this factor has no general positive effect on the institutionalization of cooperation, which is further reduced by greater heterogeneity between the two IOs.

5 Conclusions

The observation that international cooperation takes place under conditions of anarchy has stipulated a rich body of research on IOs as arenas for such cooperation (Cox et al., 1973; Lavelle, 2007; McIntyre, 1954). This has been complemented by work on IOs as actors vis-à-vis their member states and third parties (Abbott & Snidal, 1998; Finnemore, 1993). Much of the early work on IOs was based on a single or a limited number of in-depth case studies. With the "comparative turn" in the study of IOs, scholars began to focus mostly on internal aspects of IOs, such as their institutional set-up, vitality and death (Debre & Dijkstra, 2021; Eilstrup-Sangiovanni, 2020; Gray, 2018; Hooghe & Marks, 2015; Schimmelfennig et al., 2021; Tallberg et al., 2014; von Borzyskowski & Vabulas, 2019). Few comparative studies have examined how different IOs cooperate at the international level. This is surprising, as many IOs overlap with respect to member states and competencies, and previous studies suggest that regime complexity – if unmanaged through institutionalized inter-organizational cooperation agreements – can reduce the effectiveness and legitimacy of governance beyond the nation-state (Abbott & Snidal, 2010; Biermann & Koops, 2017b).

This paper contributes to closing this gap in scholarship by providing a novel dataset on inter-organizational cooperation and introducing a demand–supply–restraint model to account for variation in the emergence of cooperation and the design of cooperation agreements between dyads of overlapping IOs. We make the following core arguments.

First, we show that out of the 437 different overlapping IO pairs, 96 of them have entered into one or more cooperation agreements between 1945 and 2020. In total, there are 230 cooperation agreements, through which overlapping IOs seek to manage regime complexity. To this end, the design of cooperation agreements differs with respect to form, scope and instruments. The extent of institutionalization ranges from binding formal inter-organizational cooperation treaties to non-binding

informal agreements, from intrusive instruments such as joint implementation and joint decision-making to mere information sharing, and from only covering a single issue to agreements with a broad policy scope. Over time, the institutionalization of cooperation between overlapping IOs has increased, as agreements have become more formalized, have entailed more and stronger instruments and – albeit to a lesser extent – have covered an increasing number of different policies.

We introduce a demand–supply–restraint model to account for variation in the emergence of cooperation and the design of cooperation agreements between dyads of overlapping IOs. In the demand part, the model captures costs emanating from unmanaged membership and mandate overlap. When these costs increase, the demand for cooperation and strong institutional design also increases. The second part of the model asserts that states respond more favorably to the supply of cooperation agreements and to demanding cooperation designs when they are socialized to have a predisposition toward international cooperation or delegation. Finally, the restraints part of the model focuses on how heterogeneity between IOs in a dyad hampers the emergence of cooperation and the institutionalization of inter-organizational cooperation agreements.

Second, based on the model, we show that the likelihood of establishing cooperation increases for two overlapping IOs with higher demand, higher supply, and lower restraints. Thus, a pair of overlapping IOs is less willing to simply accept negative effects of regime complexity when they are subject a high number of member states and are equipped with many identical policy competencies and have positive predispositions towards international cooperation as well as to the delegation of authority, while restraints for cooperation are limited due to high ideological and power fit between both IOs. In other words, the likelihood of two IOs entering a cooperation agreement in the first place, increases the more members and policy competencies they share (demand), the stronger they are inclined to accept a supply of cooperation proposals (supply) and the less pronounced the ideological and power differences between them (restraint). Under these conditions, IOs are increasingly prone to turn into active shapers of regime complexity by establishing inter-organizational cooperation agreements.

Third, the demand–supply–restraint model also captures the variation in the design of cooperation agreement, but the results are more nuanced. Cooperating IOs opt for more institutionalized designs in response to greater demand and supply and fewer restraint factors. Thus, cooperation agreements between IOs that have many overlapping member states and policy competencies and whose members are accustomed to delegating authority tend to be more institutionalized. Additionally, the greater the ideological similarity between two IOs, the more likely they are to choose strongly institutionalized cooperation designs. By contrast, a general disposition towards international cooperation does not foster highly institutionalized cooperation agreements and power differentials between IOs do also not have the expected restraining effect. The findings are nuanced with respect to the three components of cooperation agreements considered separately. The treaty form is more likely to be binding when more demand and fewer restraint factors are at play. Supply also matters, but only in terms of the delegation of authority. Hence, cooperation is most likely to be highly formalized if the IOs share many member states, have

many similar policy competencies, delegate authority, and are ideologically homogeneous. The scope of cooperation agreements broadens as the demand, in terms of shared competencies, increases and the restraints, in terms of ideological differences, decrease. Instruments are more likely to be intrusive – for instance, joint implementation – when demand factors are high and the power differential in the dyad is low.

Fourth, in order to complement the insights from the demand–supply–restraint model, which theorizes the individual effects of each component, this paper additionally adopted an inductive stance concerning interaction effects between demand, supply and restraint. It reveals that, in general, high demand and high supply positively reinforce each other's effect on the design of inter-organizational cooperation agreements, while the positive effect of demand is reduced by restraining factors. In other words, more overlaps further increase the positive effect that supply-factors have on the chances of highly institutionalized cooperation designs. In addition, supply and restraint also interact in a specific manner: Greater ideological or power differences in a dyad reduce the positive effect of the delegation of authority on the institutionalization of agreements between two IOs.

In sum, overlaps between IOs increased over time, which can be problematic as regime complexity can undermine the effectiveness and legitimacy of governance beyond the nation-state (Abbott & Snidal, 2010; Biermann & Koops, 2017b), when it remains unmanaged through institutionalized inter-organizational cooperation agreements. Yet, not all overlapping IOs cooperate and if they conclude inter-organizational cooperation agreements, the design they opt for differ considerably. We show that entering cooperation agreements becomes more likely, the greater the overlaps to which organizations are exposed, the more willing they are to tackle the problem and the lower the risks of discord. Moreover, IOs opt for highly institutionalized agreement designs with formal binding rules, broad policy scopes and intrusive instruments when they are exposed to high membership and policy competency overlaps, when they are positively inclined towards delegation and when the ideological fit between to two IOs is high.

The findings are based on a novel dataset of regional IOs and can likely be generalized to global IOs, as well as non-overlapping organizations for several reasons.

First, while global IOs tend to have more member states than regional ones, they are often more task specific and equipped with fewer policy competencies than regional IOs. Compared to regional IOs, global IOs are expected to have more overlapping member states, which is problematic if the IOs are also equipped with at least one identical policy competency. At the same time, compared to global IOs, regional IOs have more overlapping policy competencies, which is problematic if the IOs also share at least one member state. Thus, being exposed to regime complexity and potential negative consequences is not a phenomenon exclusive to regional IOs but can also affect global IOs that share at least one member state with another organization and have at least one identical policy competency. Accordingly, both regional and global IOs may be embedded in regime complexes and face a demand for inter-organizational cooperation.

Second, regional and global IOs are both composed of member states that must be willing to accept the sovereignty costs arising from inter-organizational cooperation agreements. Hence, whether they are willing to respond positively to the supply of inter-organizational cooperation agreements likely also depends on their general willingness to cede part of their authority.

Third, ideological and power differences that act as restraints in regional IO dyads are also likely to be present in global IOs, especially when they differ in membership size and composition. Thus, because ideological and power differences should be more limited in global IOs with almost universal membership, the demand–supply–restraint model indicates more inter-organizational cooperation agreements among global IOs than regional IOs. However, not all 193 states have joined all global IOs. In fact, there are only twelve IOs with 180 or more member states, 19 IOs with 170 or more member states, and 23 IOs with 160 or more member states.[12] This suggests that for most global IO dyads, ideological and power differentials may also play a role in holding them back IOs from entering into inter-organizational cooperation agreements.

Thus, from a theoretical point of view, the supply–demand–restraint model is also applicable to global IOs. Future work could draw on the supply–demand-restraint model to study how global IOs respond to the challenges caused by global regime complexes. They could empirically investigate how demand, supply, and restraints influence whether overlapping global IOs enter into cooperation agreements in the first place and whether they opt for deep or shallow forms of institutionalized cooperation. Such research on global IOs would contribute to our knowledge about the conditions necessary for effective governance beyond the nation-state in an era of high regime complexity.

Regime complexity has become an integral element of international relations due to the increase in the number of IOs, their sizes, and the scope of their respective mandates. Practitioners and scholars alike have stressed that overlaps between IOs can jeopardize the effectiveness of governance beyond the nation-state. Negative effects arise when the duplication of efforts wastes resources, when IOs pass contradictory norms and rules, or when they engage in operations with incompatible strategies and aims (Abbott, 2012; Betts, 2013; Eilstrup-Sangiovanni & Westerwinter, 2022; Gómez-Mera, 2015; Hofmann, 2019; Panke & Stapel, 2018b). Since regime complexity is likely to stay, state and international actors will have to deal with the potential negative consequences for the foreseeable future. One promising way of managing regime complexity is inter-organizational cooperation. As our study shows, inter-organizational cooperation has increased and has been more strongly institutionalized in recent years. Agreements between IOs are more likely to be reached and to be more institutionalized as the demand for cooperation increases. In addition, inter-organizational cooperation agreements to address problems stemming from regime complexity are increasingly likely when states are more willing to delegate tasks and when ideological differences and power differences between IOs are less pronounced.

[12] The data was obtained from the Correlates of War IGO dataset (see Section 4 on operationalization).

Is inter-organizational cooperation a double-edged sword in the sense that it offers a chance of improving the effectiveness of IOs under conditions of regime complexity but reduces or even jeopardizes the legitimacy of the respective IOs? One might argue that inter-organizational cooperation agreements elongate the chains of legitimation and distance international politics even further from citizens. While transparency and accountability of governments within IOs and of IO policy-making is already potentially challenging (Tallberg & Zürn, 2019; Zürn, 2018), attributing responsibilities to and potentially exercising control over inter-organizational cooperation is next to impossible for the average citizen. On the other hand, inter-organizational cooperation might not endanger legitimacy per se. Given that overlapping IOs are more inclined to pursue cooperation agreements when they are ideologically similar and when one IO is unlikely to dominate the other, inter-organizational cooperation is unlikely to produce outputs and outcomes to which one of two partner IOs would object. Moreover, even highly institutionalized cooperation agreements do not tie two IOs together indefinitely, as such agreements can be rescinded by one of the parties. Whether inter-organizational cooperation in the context of regime complexity is likely to reduce the legitimacy of governance beyond the nation-state remains an empirical question that future research could fruitfully investigate.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s11558-023-09506-3.

Acknowledgements We gratefully acknowledge funding by the German Research Foundation (DFG) (PA 1257/7-1; 421167407). Olesia Andersen, Emma Hardy, Fenna Kreuz, Morgan Osterling, Hanne Oldenhof, Harry Parfitt, Dorothea Schiewer, Emma Tries, and Lukas Weißenberger provided valuable research support and language editing. We thank Ricky Clark, Mette Eilstrup-Sangiovanni, Yoram Haftel, Mirko Heinzel, Stephanie Hofmann, Alexander Kentikelenis, Matias Margulis, Manuela Moschella, Amandine Orsini, Tyler Pratt, Thomas Risse, Matthew Stephen, Moritz Weiss, Oliver Westerwinter and Bernhard Zangl for comments on earlier versions of this paper.

Author contributions Author contributions to research design and conceptualization: Diana Panke (50%), Sören Stapel (50%); statistical analysis: Diana Panke (50%), Sören Stapel (50%); writing: Diana Panke (50%), Sören Stapel (50%).

Funding Open Access funding enabled and organized by Projekt DEAL.

Declarations

Conflict of interest/competing interest The authors have no conflicting or competing financial or non-financial interest to disclose.

References

Abbott, K. W. (2012). The transnational regime complex for climate change. *Environment and Planning: Government and Policy, 30*(4), 571–590.

Abbott, K. W., & Snidal, D. (1998). Why states act through formal international organizations. *Journal of Conflict Resolution, 42*(1), 3–32.

Abbott, K. W., & Snidal, D. (2010). International regulation without international government: Improving IO performance through orchestration. *The Review of International Organizations, 5*(3), 315–344.

Abbott, K. W., Keohane, R. O., Moravcsik, A., Slaughter, A. M., & Snidal, D. (2000). The concept of legalization. *International Organization, 54*(3), 401–419.

AC-EU. (2006). Northern dimension policy framework document.

Acharya, A., & Johnston, A. I. (2007). Comparing regional institutions: an introduction. In A. Acharya & A. I. Johnston (Eds.), *Crafting Cooperation. Regional international institutions in comparative perspective* (pp. 1–31). Cambridge University Press.

ALBA-TCP. (2021). ALBA-TCP rechaza injerenca e intromisión del Secretario General de la OEA en los asuntos internos de Bolivia. Available online at https://www.albatcp.org/comunicado/alba-tcp-rechaza-injerencia-e-intromision-del-secretario-general-de-la-oea-en-los-asuntos-internos-de-bolivia/. Last accessed 24 Sept 2021.

Alter, K. J., & Meunier, S. (2009). The politics of international regime complexity. *Perspectives on Politics, 7*(1), 13–24.

Alter, K. J., & Raustiala, K. (2018). The rise of international regime complexity. *Annual Review of Law and Social Science, 14*(1), 329–349.

Aris, S., Snetkov, A., & Wenger, A. (Eds.). (2018). *Inter-organizational relations in international security: Cooperation and competition*. Routledge.

Avant, D., & Westerwinter, O. (Eds.). (2016). *The new power politics: networks and transnational security governance*. Oxford Oxford University Press.

Axelrod, R. A. (1984). *The evolution of cooperation*. Basic Books.

Axelrod, R. A., & Keohane, R. O. (1986). Achieving cooperation under anarchy: Strategies and institutions. *World Politics, 38*(1), 226–254.

Baccini, L., Dür, A., & Elsig, M. (2015). The politics of trade agreement design: Revisiting the depth–flexibility nexus. *International Studies Quarterly, 59*(4), 765–775.

Betsill, M., Dubash, N. K., Paterson, M., van Asselt, H., Vihma, A., & Winkler, H. (2015). Building productive links between the UNFCCC and the broader global climate governance landscape. *Global Environmental Politics, 15*(2), 1–10.

Betts, A. (2010). The refugee regime complex. *Refugee Survey Quarterly, 29*(1), 12–37.

Betts, A. (2012). *Global migration governance*. Oxford University Press.

Betts, A. (2013). Regime complexity and international organizations: UNHCR as a challenged institution. *Global Governance: A Review of Multilateralism and International Organizations, 19*(1), 69–81.

Biermann, R. (2008). Towards a theory of inter-organizational networking. *The Review of International Organizations, 3*(2), 151–177.

Biermann, R. (2015). Designing cooperation among international organizations: Autonomy concerns, the dual consensus rule, and cooperation failure. *Journal of International Organization Studies, 6*(2), 45–66.

Biermann, R., & Koops, J. A. (Eds.). (2017a). *Palgrave handbook of inter-organizational relations in world politics*. Palgrave.

Biermann, R., & Koops, J. A. (2017b). Studying relations among international organizations in world politics: Core concepts and challenges. In R. Biermann & J. A. Koops (Eds.), *Palgrave Handbook of inter-organizational relations in world politics* (pp. 1–46). Palgrave.

Bond, M. (2010). The EU and the Council of Europe: Difference, duplication or delegation? In C. Gebhard & D. J. Galbreath (Eds.), *Cooperation or conflict? Problematizing organizational overlap in Europe* (pp. 25–42). Ashgate.

Brambor, T., Roberts Clark, W., & Golder, M. (2005). Understanding interaction models: Improving empirical analyses. *Political Analysis, 14*, 63–82.

Brosig, M. (2011). Overlap and interplay between international organisations: Theories and approaches. *South African Journal of International Affairs, 18*(2), 147–167.

Brosig, M. (2020). Whither a theory of inter-organisational relations: A burgeon field of research between conceptual innovation and fragmentation. *Journal of Intervention and Statebuilding, 14*(2), 171–186.

Busch, M. L. (2007). Overlapping institutions, forum shopping, and dispute settlement in international trade. *International Organization, 61*(4), 735–761.

CARICOM and OAS. (1992). Agreement between the General Secretariat of the Organization of American States and the Caribbean Community. Washington, D.C.

Checkel, J. T. (1998). The constructivist turn in international relations theory. *World Politics, 50*(2), 324–348.

CIS and CSTO. (2001). Agreement on cooperation between the Council of Defense Ministers of the States Parties to the Treaty on Collective Security of May 15, 1992 and the Council of Defense Ministers of the Member States of the Commonwealth of Independent States and their working bodies Moscow.

CIS. (2019). On the prospects for further improving the CIS and the feasibility of updating the concept of its development in modern conditions. Available online at https://e-cis.info/news/566/85079/. Last accessed 12/10/2021.

CIS, CSTO and SCO. (2018). Memorandum of Understanding on Cooperation and Interaction between the SCO RATS, CIS ATC, and the CSTO Secretariat. Moscow.

Clark, R. (2021). Pool or duel? Cooperation and competition among international organizations. *International Organization, 75*(4), 1133–1153.

Coe, B. N. (2019). *Sovereignty in the South: Intrusive regionalism in Africa, Latin America, and Southeast Asia*. Cambridge University Press.

CoE. (2010). The need to avoid duplication of the work of the Council of Europe by the European Union Agency for Fundamental Rights. Parliamentary Assembly, Committee on Legal Affairs and Human Rights, Doc. 12272: Strasbourg.

Cooper, A. F. (2017). The organization of American States: Promise and limitations as a hub institution. In P. Riggirozzi & C. Wylde (Eds.), *Handbook of South American governance* (pp. 111–123). Routledge.

Coppedge, M., Gerring, J., Henrik, K. C., Lindberg, S. I., Teorell, J., ... and Ziblatt, D. (2020) V-Dem [Country–Year/Country–Date] Dataset v10.1. Varieties of Democracy Project. https://doi.org/10.23696/vdemds20

Cox, R. W., Jacobson, H. K., Curzon, G., Curzon-Price, V., Nye, J. S., Scheinman, L., Sewell, J. P., & Strange, S. (Eds.). (1973). *The anatomy of influence: Decision making in international organization*. Yale University Press.

Debre, M. J., & Dijkstra, H. (2021). Institutional design for a post-liberal order: Why some international organizations live longer than others. *European Journal of International Relations, 27*(1), 311–339.

Dijkstra, H. (2017). The rational design of relations between intergovernmental organizations. In R. Biermann & J. A. Koops (Eds.), *Palgrave handbook of inter-organizational relations in world politics* (pp. 97–112). Palgrave.

Eilstrup-Sangiovanni, M. (2020). Death of international organizations. The organizational ecology of intergovernmental organizations, 1815–2015. *The Review of International Organizations, 15*(1), 339–370.

Eilstrup-Sangiovanni, M. (2022). Ordering global governance complexes: The evoluation of the governance complex for international civil aviation. *Review of International Organizations, 17*(2), 293–322.

Eilstrup-Sangiovanni, M., & Westerwinter, O. (2022). The global governance complexity cube: Varieties of institutional complexity in global governance. *The Review of International Organizations, 17*(2), 233–262.

Fearon, J. (1998). Bargaining, enforcement, and international cooperation. *International Organization, 52*(2), 269–305.

Feenstra, R. C., Inklaar, R., & Timmer, M. P. (2015). The next generation of the Penn World Table. *American Economic Review, 105*(10), 3150–3182.

Finnemore, M. (1993). International organization as teachers of norms: The united nations educational, scientific, and cultural organization and science policy. *International Organization, 47*(4), 565–597.

Gebhard, C., & Galbreath, D. J. (2013). *Cooperation or conflict?: Problematizing organizational overlap in Europe*. Ashgate.

Gest, N., & Grigorescu, A. (2010). Interactions among intergovernmental organizations in the anti-corruption realm. *The Review of International Organizations, 5*(1), 53–72.
Goldstein, J., & Martin, L. L. (2000). Legalization, trade liberalization, and domestic politics: A cautionary note. *International Organization, 54*(3), 603–631.
Gómez-Mera, L. (2015). International regime complexity and regional governance: Evidence from the Americas. *Global Governance, 21*(1), 19–43.
Goodin, R. E. (Ed.). (1995). *The theory of institutional design*. Cambridge University Press.
Gray, J. (2018). Life, death, or zombie? The vitality of international organizations. *International Studies Quarterly, 62*(1), 1–13.
Gray, J., & Slapin, J. B. (2012). How effective are preferential trade agreements? Ask the experts. *Review of International Organizations, 7*(3), 309–333.
Grieco, J. M. (1988). Anarchy and the limits of cooperation: A realist critique of the newest liberal institutionalism. *International Organization, 42*(3), 485–507.
Grigorescu, A. (2020). *The Ebb and flow of global governance: Intergovernmentalism versus nongovernmentalism in world politics*. Cambridge University Press.
Gutner, T. (2022). Collaboration, cooperation, coordination: A history of the Bretton Woods twins' efforts to work together. *Review of International Political Economy, 30*(3), 965–990.
Hathaway, O. A. (2008). International delegation and state sovereignty. *Law and Contemporary Problems, 71*(1), 115–149.
Hawkins, D. G., Lake, D. A., Nielson, D. L., & Tierney, M. J. (Eds.). (2006). *Delegation and agency in international organizations*. Cambridge University Press.
Henneberg, I., & Plank, F. (2020). Overlapping regionalism and security cooperation: Power-based explanations of Nigeria's forum-shopping in the fight against Boko Haram. *International Studies Review, 22*(3), 576–599.
Hofmann, S. C. (2009). Overlapping institutions in the realm of international security: The case of NATO and ESDP. *Perspectives on Politics, 7*(1), 45–52.
Hofmann, S. C. (2019). The politics of overlapping organizations: Hostage-taking, forum-shopping and brokering. *Journal of European Public Policy, 26*(6), 883–905.
Hooghe, L., & Marks, G. (2015). Delegation and pooling in international organizations. *Review of International Organizations, 10*(3), 305–328.
Hooghe, L., Lenz, T., & Marks, G. (2019). *A theory of international organization*. Oxford University Press.
Hurd, I. (2017). *International organizations: Politics, law, practice*. Cambridge University Press.
Jaccard, J., & Turrisi, R. (2003). *Interaction effects in multiple regression*. Sage.
Keohane, R. O. (1984). *After hegemony. Cooperation and discord in the world political economy*. Princeton University Press.
Keohane, R. O., & Nye, J. S. J. (1977). *Power and interdependence*. Little, Brown.
Keohane, R. O., & Victor, D. G. (2011). The regime complex for climate change. *Perspectives on Politics, 9*(1), 7–23.
Koremenos, B., Lipson, C., & Snidal, D. (2001). The rational design of international institutions. *International Organization, 55*(4), 761–799.
Lavelle, K. C. (2007). Exit, voice, and loyalty in international organizations: US involvement in the League of Nations. *The Review of International Organizations, 2*(4), 371–393.
Lipson, M. (2017). Organization theory and cooperation and conflict among international organizations. In R. Biermann & J. A. Koops (Eds.), *Palgrave handbook of inter-organizational relations in world politics* (pp. 76–96). Palgrave.
Lutz, E. L., & Sikkink, K. (2000). International human rights law and practice in Latin America. *International Organization, 54*(3), 633–659.
Margulis, M. E. (2021). Intervention by international organizations in regime complexes. *The Review of International Organizations, 16*(4), 871–902.
Martin, L. L. (1992). *Coercive cooperation: Explaining multilateral economic sanctions*. Princeton University Press.
McIntyre, E. (1954). Weighted voting in international organizations. *International Organization, 8*(4), 484–497.
Mearsheimer, J. (1994). The false promise of international institutions. *International Security, 19*(3), 5–49.
Moravcsik, A. (1993). Preferences and power in the European Community: A liberal intergovernmental approach. *Journal of Common Market Studies, 31*(4), 473–524.

Morse, E. L. (1969). The politics of interdependence. *International Organization, 23*(2), 311–326.
Nolte, D. (2018). Costs and benefits of overlapping regional organizations in Latin America: The case of the OAS and UNASUR. *Latin American Politics and Society, 60*(1), 128–153.
OAS. (1998). OAS in Cooperation Agreement with Andean Community, Press Release September 15, 1998. Available at: http://www.oas.org/OASpage/press2002/en/Press98/091598ae.htm. Last accessed 9 July 2021.
OAS. (2010). The OAS and CARICOM will send a joint electoral observation mission to Haiti, Press Release. Available online at https://www.oas.org/fr/centre_medias/communique_presse.asp?sCodigo=F-277/10. Last accessed 11 Mar 2022.
Panke, D. (2020). Regional cooperation through the lenses of states: Why do states nurture regional integration? *The Review of International Organizations, 15*(2), 475–504.
Panke, D., & Stapel, S. (2018a). Exploring overlapping regionalism. *Journal of International Relations and Development, 21*(3), 635–662.
Panke, D., & Stapel, S. (2018b). Overlapping regionalism in Europe: Patterns and effects. *The British Journal of Politics and International Relations, 20*(1), 239–258.
Panke, D., & Stapel, S. (2023). Navigating regional regime complexity: How and why does the EU cooperate with other regional organizations? *Politics & Governance, 11*(2), 97–108.
Panke, D., Stapel, S., & Starkmann, A. (2020). *Comparing regional organizations. Global dynamics and regional particularities*. Bristol University Press.
Panke, D., & Stapel, S. (forthcoming-a). Towards increasing regime complexity? Why member states drive overlaps between international organizations. *British Journal of Politics and International Relations*. https://doi.org/10.1177/13691481221115937
Panke, D., & Stapel, S. (forthcoming-b). Overlapping regionalism around the world: Introducing the overlapping regionalism dataset. *International Area Studies Review.* https://doi.org/10.1177/22338659231194943
Pevehouse, J. C. W., Nordstrom, T., McManus, R. W., & Jamison, A. S. (2020). Tracking organizations in the world: The correlates of war IGO version 3.0 datasets. *Journal of Peace Research, 57*(3), 492–503.
Pollack, M. A. (1997). Delegation, agency, and agenda setting in the European Community. *International Organization, 51*(1), 99–134.
Pratt, T. (2018). Deference and hierarchy in international regime complexes. *International Organization, 72*(3), 561–590.
Risse-Kappen, T. (1995). *Cooperation among democracies. The European influence on U.S. Foreign Policy*. Princeton University Press.
Rittberger, V., Zangl, B., & Kruck, A. (2012). *International organization*. Palgrave Macmillan.
Roger, C. (2020). *The origins of informality: Why the legal foundation of global governance are shifting, and why it matters*. Oxford University Press.
Schimmelfennig, F., & Sedelmeier, U. (2005). *The politics of European Union enlargement: Theoretical approaches*. Routledge.
Schimmelfennig, F., Winzen, T., Lenz, T., Rocabert, J., Crasnic, L., Gherasimov, C., Lipps, J., & Mumford, D. (2021). *The rise of international parliaments: Strategic legitimation in international organizations*. Oxford University Press.
Snidal, D. (1991). International cooperation among relative gain maximizers. *International Studies Quarterly, 35*(4), 387–402.
Sommerer, T., Squatrito, T., Tallberg, J., & Lundgren, M. (2022). Decision-making in International organizations: Institutional design and performance. *Review of International Organizations*, *17*(4), 815–845.
Stapel, S. (2022). *Regional organizations and democracy, human rights, and the rule of law: The African Union, Organization of Americas States, and the diffusion of institutions*. Palgrave Macmillan.
Tallberg, J., Sommerer, T., Squatrito, T., & Jönsson, C. (2014). Explaining the transnational design of international organizations. *International Organization, 68*(4), 741–774.
Tallberg, J., & Zürn, M. (2019). The legitimacy and legitimation of international organizations: Introduction and framework. *The Review of International Organizations, 14*(4), 581–606.
Uji, A. (2022). The shadow of history in inter-organizational cooperation for the environment. *The Journal of Environment & Development, 31*(4), 352–374.
Urpelainen, J., & Van de Graaf, T. (2015). Your place or mine? Institutional capture and the creation of overlapping international institutions. *British Journal of Political Science, 45*(4), 799–827.

von Borzyskowski, I., & Vabulas, F. (2019). Hello, goodbye: When do states withdraw from international organizations? *The Review of International Organizations, 14*(2), 335–366.
Weiffen, B., Wehner, L., & Nolte, D. (2013). Overlapping regional security institutions in South America: The case of OAS and UNASUR. *International Area Studies Review, 16*(4), 370–389.
Yeo, A. (2018). Overlapping regionalism in East-Asia: Determinants and potential effects. *International Relations of the Asia-Pacific, 18*(2), 161–191.
Zürn, M. (2018). *A theory of global governance: Authority, legitimacy, and contestation*. Oxford University Press.