

# Domestic drivers of transgovernmental regulatory cooperation

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## Abstract

Transgovernmental cooperation among domestic regulators has generated considerable interest among scholars and policymakers. While previous research has focused on describing such regulatory networks, we know very little about what drives individual jurisdictions to join them. The question of membership is important because it determines the reach of rules and standards promulgated by a given network, and because it is logically prior to understanding the rulemaking dynamic within a network. We develop a set of hypotheses that highlight the role of domestic political factors in shaping network membership. Our empirical analysis, using an original data set for transgovernmental cooperation in securities and insurance regulation, finds that the institutional form of domestic market regulation, as well as the relative domestic weight of the industry, are closely correlated with membership. All else equal, jurisdictions with independent regulatory agencies and those where the industry in question represents a large share of gross domestic product are much more likely to join the respective network than jurisdictions without these characteristics. The paper underscores the important interactions between domestic and international factors for informal cooperation, an issue that has become increasingly central to global governance.

**Keywords:** finance, quantitative, regulatory cooperation, transgovernmental.

## 1. Introduction

Scholars of international cooperation increasingly recognize the importance of informal non-treaty-based institutions in the day-to-day management of global governance. Transgovernmental networks<sup>1</sup> comprised of domestic regulatory officials have emerged in a broad range of policy domains, including financial markets, pharmaceuticals, energy, the environment, data privacy, anti-trust, and human rights.<sup>2</sup> Policymakers frequently rely on these networks to share best practices, coordinate policies, harmonize regulations, and provide mutual enforcement assistance. Despite the fact that agreements reached through transgovernmental networks are generally non-binding on members, research has shown that their promulgations can have discernible effects on domestic policy (Bach & Newman 2010b). This is because network-based governance unfolds through a two-step process. First, domestic regulators – often without close supervision by elected officials – engage in international policymaking via networks to

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harmonize standards and technical rules across borders. Subsequently, these regulators implement these standards, rules, and best practices at home.

Most of the research conducted so far has focused on describing the emergence and characteristics of such networks. A few studies have looked at policy dynamics within them. However, no effort has been made to systematically explain network membership patterns. Knowing who joins a given network when and why is critical if we want to fully grasp the current role and future potential of transgovernmental networks in global governance. Moreover, network membership poses an intriguing puzzle in its own right. The economic costs of membership are quite low, akin to the annual dues of a professional association. Nevertheless, many jurisdictions either fail to join a relevant transgovernmental network or wait many years before signing on. If membership is voluntary and there are few institutional barriers to entry or exit, what accounts for observable variation in membership patterns?

The first wave of research on transgovernmental cooperation in the 1970s stressed economic development and interdependence as underpinning demand for cross-border engagement – wealthy countries open to global markets were most likely to participate actively in global governance.<sup>3</sup> Both factors are compelling. However, they alone are insufficient to explain the significant variation in participation over time and the inclusion of an ever-growing number of small jurisdictions whose markets barely impact those of leading players. The US and Peru were founding members of the International Organization of Securities Commissions (IOSCO) in 1983. Economic development and global integration might explain the former's decision to link up with its foreign counterparts, but did they also drive the latter's? And why did the United Arab Emirates only become a member in 2003, after more than 80 other countries had already joined?

We argue that domestic political factors play a key role in driving transgovernmental network membership. To understand a jurisdiction's decision to join, we have to account for the interests, incentives, and constraints shaping the behavior of domestic regulatory institutions and actors (Wilson 1991; Goodman & Pauly 1993; Gilardi 2002; Bach & Newman 2007; Gilardi 2007; Singer 2007). Drawing on the political economy of regulation literature, we hypothesize that the structure of domestic regulation and sector dynamics create powerful demands for transgovernmental cooperation. In particular, jurisdictions with independent regulatory agencies (in contrast to institutional alternatives, such as ministry or parliamentary oversight) may see such cooperation as a means to avoid interference by political principals, as well as a mechanism through which to build domestic political legitimacy (Carpenter 2001; Thatcher 2002; Singer 2007).<sup>4</sup> In addition, we expect a jurisdiction's incentive to join will vary with the importance of the sector in the domestic economy. The larger the domestic industry in question, the more domestic market participants have a stake in and are affected by global rules, and, therefore, the greater their interest in ensuring their jurisdiction gets involved in international regulatory efforts (Singer 2007).

We test our domestic politics argument in a novel dataset of network membership for financial securities and insurance cooperation. Created in 1983, the IOSCO initially counted regulators from 12 countries among its ranks. By 2006, its membership had grown sevenfold and regulators from 85 jurisdictions were represented as full members, making IOSCO the preeminent global forum for securities regulation and a prime example of a transgovernmental regulatory network. IOSCO's counterpart in the field of insurance, the International Association of Insurance Supervisors (IAIS), was founded in 1995 by regulators from 61 jurisdictions. Its membership had almost doubled by 2006 when it reached 116, making it one of the transgovernmental networks with the broadest membership scope. Importantly, both networks are prototypical informal institutions that rely on voluntary participation of domestic regulators

(securities commissions and insurance supervisors, respectively), rather than treaty-based public international law (Zaring 2005).

Our econometric analysis finds considerable support for the domestic politics argument. Controlling for a broad range of other variables, we find for the securities and insurance networks that jurisdictions with independent regulators were significantly more likely to have joined the corresponding transgovernmental network than those without independent regulators. Similarly, jurisdictions where the sector in question represented a larger proportion of gross domestic product (GDP) were significantly more likely to count their regulator among the network's membership than those jurisdictions with comparatively smaller sectors.

The findings contribute to several important lines of inquiry in global governance. First, to our knowledge, they offer the first quantitative investigation of factors associated with membership in transgovernmental networks. Second, the findings further illuminate the two-way interactions of domestic and international factors, including law and regulation, in producing global governance.<sup>5</sup> Our study shows that the development of regulatory institutions domestically plays an important role in the rise of networked transgovernmental cooperation as a distinct form of global governance. Third, by highlighting the role that sector size plays in underpinning demand for transgovernmental cooperation, we extend earlier insights about the role of sectors in shaping trade preferences to the domain of transgovernmental networks and global governance more broadly (Frieden & Rogowski 1996).

The paper proceeds in four sections. We first track the rise of transgovernmental networks, particularly those in securities and insurance. The subsequent section develops our domestic political economy argument. We then present the dataset, methodology, and our results. The conclusion considers implications for both research and public policy in the area of transgovernmental regulatory politics and global governance.

## 2. Transgovernmental regulatory networks in global governance

Since at least the 1970s, international relations scholars have tracked the growing international activities of domestic regulatory actors. Dubbed “transgovernmental relations” in seminal work by Keohane and Nye (1974, 1977), technocratic coordination among domestic officials from distinct jurisdictions was seen as a potent tool to confront governance challenges in a world of complex interdependence. Scholars examined direct links among lower-level government bureaucrats in areas such as economic and monetary policy (Russell 1973), food policy (Hopkins 1976; Hopkins & Puchala 1978), energy policy (Keohane 1978), and the specific case of US–Canada relations (Holsti & Levy 1974). More recently, scholars have identified such networks in policy domains as diverse as aircraft certification (Bermann 1993), pharmaceuticals (Bach & Newman 2010a), competition policy (Djelic & Kleiner 2006), data privacy (Newman 2008), human rights (Cardenas 2003), nonproliferation (Lipson 2005–2006), and the environment (Raustiala 1997). The literature uses the term “network” because it captures the informal, non-treaty-based nature of cooperation, which places the lion's share of work in the hands of members organized in committees, rather than in a large centralized bureaucracy.

During the initial rise of transgovernmental politics in the 1970s, veteran diplomats, such as America's George Kennan, frowned upon this form of global governance: “It is certainly true that there has been a growing incidence of these other departments outside the State Department going off on their own. This has been a chronic problem. How do you keep people who often have no idea about foreign policy from doing things completely uncoordinated with a President's policy?” (as quoted in Hopkins 1976, pp. 413–414). Yet by the late 1990s, this view had

changed. Scholars heralded transgovernmental networks as the building block of a “new world order” in a post-Cold War world (Slaughter 1997, 2004). Policymakers in both Brussels and Washington explicitly endorsed such cooperation and set an agenda to foster transgovernmental regulatory coordination via networks (Bermann *et al.* 2000). Besides the demand for cooperation resulting from globalization, scholars identified the transformation of the modern state as the principal driving force. “The state is not disappearing,” argued Slaughter in 1997, “it is disaggregating into its separate, functionally distinct parts. These parts – courts, regulatory agencies, executives, and even legislatures – are networking with their counterparts abroad, creating a dense web of relations that constitute a new, transgovernmental order” (Slaughter 1997, p. 184). The links established among domestic regulatory agencies are particularly strong. “Transgovernmental regulatory networks,” Slaughter (2001, p. 347) argues, are “fast, flexible and decentralized – attributes that allow them to function particularly well in a rapidly changing information environment.” Echoing this sentiment, Raustiala (2002, p. 1) sees transgovernmental networks as constituting the critical piece of the “architecture of international cooperation” for the 21st century.

Transgovernmental regulatory networks come in many variations. The scope of membership is one key dimension along which such networks vary. Some networks are quite exclusive. The International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH), for example, only comprises regulators from three jurisdictions: the US, Japan, and the EU (Bach & Newman 2010a). Membership in the Basel Committee of Banking Supervisors has grown from 10 members initially in 1974, to 27 in 2010, but it remains an exclusive club of leading financial markets (Kapstein 1989; Singer 2004). Membership in other transgovernmental networks, in contrast, is open to all jurisdictions. Such open networks span a broad range of issue areas, including the International Competition Network (ICN), the International Association of Insurance Supervisors (IAIS), or the International Network for Environmental Compliance and Enforcement. In this study we are primarily interested in the second group, networks that are, in principle, open to all jurisdictions, rather than the more exclusive, invitation-only clubs.<sup>6</sup>

The spread and growing importance of transgovernmental regulatory networks focuses attention on an issue that has not yet been empirically explored: the question of membership. In fact, a large number of transgovernmental networks fall into the second camp and are open to any jurisdiction that meets basic membership criteria. Annual membership fees are nominal, often amounting to just a few thousand dollars. Despite the fact that membership is open and relatively inexpensive, there are several reasons to think that membership matters. In a formal sense, membership is required to fully participate in the organization. It provides voting rights, the ability to serve and head committees, attend meetings, and receive network information and updates. There is growing evidence that membership correlates with information sharing and capacity building (Bach & Newman 2010b). Similarly, membership is required to participate in the development of the network’s agenda. While membership is only one indicator of network participation, it is clearly the most basic form and, thus, a logical starting point for any inquiry in this space.<sup>7</sup> What then makes a jurisdiction join a given network? And why do some jurisdictions refuse to join or hold out for many years? More generally, what accounts for the timing of membership decisions across jurisdictions and policy domains?

We explore these questions empirically for two distinct transgovernmental regulatory networks with open membership policies: the securities networks anchored by IOSCO, and the insurance network organized around IAIS. Just a casual look at the evolution of membership in the two networks shows some intriguing patterns and puzzles. IOSCO started out with 12

ordinary members in 1983, and in 2006 counted regulators from 85 jurisdictions amongst its ranks.<sup>8</sup> The network's initial membership, thus, represented fewer than 20 percent of countries that had stock exchanges at the time, whereas its 2006 membership encompassed more than 80 percent of such countries. In contrast, IAIS had 61 founding members in 1995 and the organization's membership had swelled to 116 by 2006. IOSCO was founded 12 years before IAIS, so the fact that most jurisdictions joined the securities network before the insurance network should not surprise. Yet a closer look reveals some interesting patterns and variations. Some countries, such as Russia, Slovakia, and Mongolia, joined both IOSCO and IAIS in the same year, though the year in which they did differed sharply – 1995 for Russia, 2001 for Slovakia, and 2003 for Mongolia. Others, such as Colombia, a founding member of IOSCO in 1983, and Trinidad and Tobago, an early IOSCO member in 1986, only joined IAIS in 2007 and 2001, respectively. Still others, such as Ghana, were founding members of IAIS in 1995 and only joined IOSCO several years later, in the case of Ghana, for example, in 2000. Finally, more than 30 countries, including Iceland, Namibia, Azerbaijan, and Kuwait, are members of IAIS, but not IOSCO. In contrast, all IOSCO member jurisdictions are also represented in IAIS.

The principal reason for our focus on the securities and insurance networks is that they offer a good mix of similarities and differences. Both are exemplary of contemporary transgovernmental politics as membership is open to regulatory authorities from any jurisdiction, decisions are non-binding, and involvement varies from those members active in multiple working groups to those who barely participate in annual meetings. Both networks are also concerned with aspects of global financial market regulation. At the same time, there are important differences between them as a brief look at the two networks' respective evolution shows.

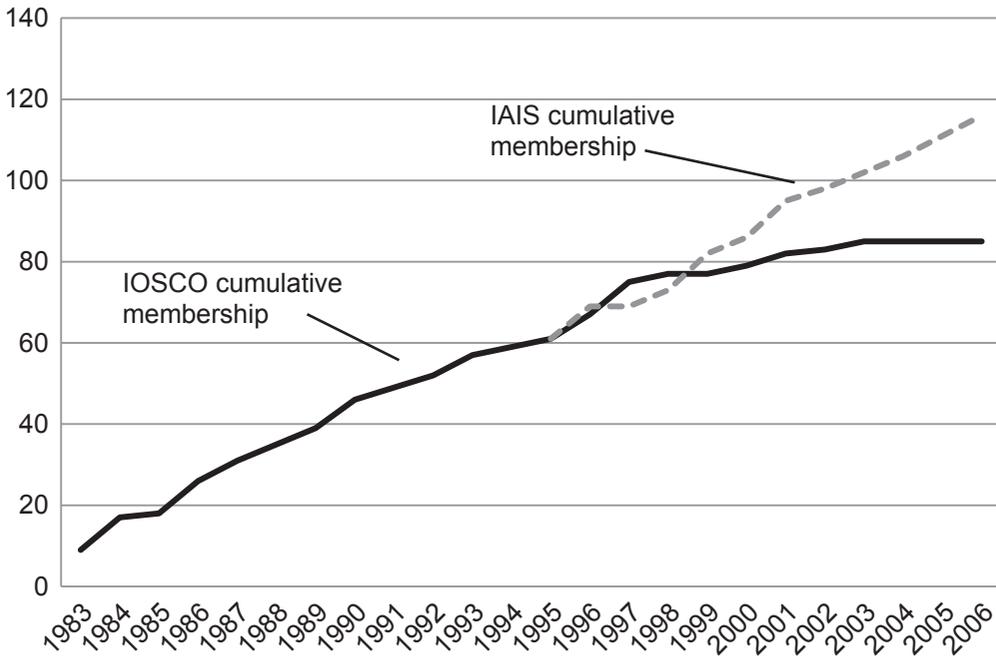
### **2.1. International Organization of Securities Commissions (IOSCO)**

Beginning in the mid-1970s, the securities regulators from a handful of Latin American countries, along with the US Securities and Exchange Commission (SEC) and regional Canadian regulators, began to meet occasionally, mostly to foster North–South knowledge transfer. After the British and French regulators showed interest in joining the group, the existing members in 1983 agreed to open membership beyond the Americas and formally renamed their group the International Organization of Securities Commissions. Besides regulators from Britain and France, their counterparts from South Korea, Australia, and Hong Kong were among the first from outside the Americas to join the incipient organization.

According to IOSCO's by-laws,

[Ordinary Membership] is open to a securities commission, or a similar government or statutory regulatory body that has primary responsibility for securities regulation in its jurisdiction. If there is no governmental, or statutory, regulatory body in a jurisdiction then a self-regulatory body, such as a stock exchange, in that jurisdiction is eligible for ordinary membership of IOSCO. However, the ordinary membership of a self-regulatory body admitted to IOSCO will lapse if a governmental regulatory body from the same jurisdiction becomes the ordinary member for that jurisdiction. (IOSCO 1995)

Indeed, the organization's membership features (or has featured in the past) the full institutional diversity of securities market regulation. Ireland, Uruguay, and Malawi, for example, are represented by their central banks. Until 2004, the voting rights for Malta, Bahrain, and Barbados were exercised by these countries' stock exchanges. Japan was represented by its Ministry of Finance until it created an independent regulatory agency in 1999. Germany is a particularly interesting case. During the 1990s, its voting rights were exercised first by the self-regulatory



**Figure 1** Membership in the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) (1983–2006).

German Federation of Stock Exchanges, then the federal Ministry of Finance, and, since 1995, by an independent regulatory agency modeled on the SEC (Lütz 1998). According to IOSCO's first Secretary General Paul Guy, from the beginning, IOSCO's members preferred the greatest possible geographic coverage to any "ideologically driven quest for member homogeneity."<sup>9</sup> Nevertheless, in its landmark Objectives and Principles of Securities Regulation, a set of regulatory benchmarks, the organization took a clear stand by stating that "the regulator [over a market] should be operationally independent," it "should have adequate powers, proper resources and the capacity to perform its functions and exercise its powers," and its staff "should observe the highest professional standards" (IOSCO 1998). While formally open to diverse member organizations, IOSCO, thus, clearly favors members who are independent regulatory agencies, such as the SEC. In fact, a not insignificant number of stock exchanges, central banks, and finance ministries that had at one point been voting ordinary IOSCO members subsequently passed on voting rights to newly created independent securities regulators in their respective jurisdictions.<sup>10</sup> Overall, ordinary membership grew steadily after 1983, experienced a boost during the time of post-communist market-oriented transitions, and began to level off during the 2000s (Fig. 1).

## 2.2. International Association of Insurance Supervisors (IAIS)

IAIS has its origins as a loose network of market regulators who would meet alongside the annual conference of the US National Association of Insurance Commissioners (NAIC). A small number of foreign regulators began to attend the meetings in the late 1980s, including Bermuda and a few European representatives. Initial efforts focused primarily on capacity building and information exchange. In 1995, IAIS began formal meetings and established a secretariat at the Bank of International Settlement (BIS) in Basel. IAIS quickly started working on sector

**Table 1** International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS)

	IOSCO	IAIS
Year of creation	1983	1995
Number of founding member countries	12	61
Number of member countries in 2006	85	116
Areas of activity	Regulatory harmonization, standard setting, best practice development and diffusion; technical assistance and training; enforcement cooperation; coordination with other international financial forums	Development of principles, standards, and guidelines for insurance supervision; technical assistance and training; coordination with other international financial forums
Based in	Madrid	Bank for International Settlements, Basel

IOSCO, International Organization of Securities Commissions.

standards and was integrated into the International Monetary Fund's (IMF) economic standards project. IAIS core standards are now used by the IMF to evaluate national sector stability and development.

As is the case with IOSCO, institutional representation among IAIS' membership ranks varies considerably, including central banks, economy or finance ministries, and insurance commissions. Membership is open to any insurance "regulator/supervisor," according to IAIS' by-laws. Ireland, for example, is represented by its central bank, Germany by the financial markets supervisor, and New Zealand by the ministry of finance. In several cases, such as the US, sub-national insurance commissioners lead delegations. While membership is not conditioned on regulatory independence, the IAIS benchmark core principles recommend supervisory structures that are, "operationally independent and accountable in the exercise of its functions and powers" (IAIS 2011, p. 9).

Table 1 provides a quick summary snapshot of the two networks.

### 3. Explaining membership: Domestic roots of global cooperation

While the literature on transgovernmental politics reaches back to the 1970s, the question of membership in transgovernmental networks has been virtually ignored. In fact, there is a general lack of rigorous empirical research, particularly quantitative research, on these networks. As Slaughter asserts in a far-reaching study, "for present purposes, it is more important to identify and describe government networks than to explain them" (Slaughter 2004, p. 40). Most existing studies, indeed, merely describe networks in particular domains, compare them across domains, and explore the ways they work. Few empirical studies have focused on the effects of networked cooperation, specifically on participating sub-state actors (Bach & Newman 2010b).

The goal of this article is to develop a domestic political argument to shed light on demand factors that drive a jurisdiction's decision to join a regulatory network (Mattli & Woods 2009). In particular, we highlight the incentives and constraints faced by domestic regulatory actors, as well as the interests and influence of national firms. We focus on domestic political factors for

several reasons. One of the major insights of the interdependence literature of the 1970s and 1980s was to refocus attention on the role of domestic politics in international affairs. In recent years, scholars have examined the role of domestic politics in a host of political economy concerns ranging from cooperation on trade to membership in international organizations (Mansfield & Pevehouse 2006). The overarching finding is that the configuration of the state and state–society relations affects the drivers, intensity, and preferences of actors engaging in global politics. We think such an approach should be particularly relevant for transgovernmental cooperation as such networks are comprised of domestic regulatory actors and are, thus, likely to be affected by national political dynamics. Moreover, regulation frequently involves distributional trade-offs that go to the heart of firm and sector competitiveness. We, therefore, anticipate that the organization of regulation, as well as the structure of the market, will matter for whether jurisdictions join such networks. In what follows, we develop our argument about domestic political factors that favor membership.

### 3.1. Regulatory structure and regulator preferences

Our starting point is to scrutinize the domestic organization of regulation. Regulatory structure can vary across economies, sectors, and time. Formal delegation of regulatory authority to an independent regulatory agency is only one among several institutional alternatives (Epstein & O'Halloran 1999; Bendor *et al.* 2001; Thatcher & Stone Sweet 2002). An institutional innovation frequently associated with the New Deal in the US, regulation through delegation to independent agencies, has only recently spread around the world, with few instances prior to 1990 (Jordana *et al.* 2011; Gilardi 2005). In fact, the prevailing model in many countries and sectors is still that regulatory authority is not delegated and is, instead, exercised by a ministry or other public body serving at the whim of elected officials or political leaders. Even where regulatory authority is delegated to a public agency, the degree of independence can vary. Earlier research has identified non-partisan personnel rules, independent funding sources, budgetary autonomy, and leadership tenure that exceeds any single electoral term as factors associated with greater independence. Building on this literature, we argue that formal autonomy from conventional centers of foreign policymaking – especially cabinet-level officials in foreign, trade, or economic ministries ordinarily involved in external affairs – increases the likelihood of domestic regulators forging cross-border links. To be sure, there are also instances where regulatory authority is delegated to multiple, partially overlapping and, at times, competing agencies, and this might affect a jurisdiction's likelihood to engage in transgovernmental cooperation. We do not explore this additional dimension of institutional variation in this article and focus instead on the presence or absence of an independent sector regulator.

Not only should independent regulators be less constrained and more capable to network with foreign counterparts than institutional alternatives, they also have powerful incentives to do so. Drawing on the literature on bureaucratic politics and bureaucratic autonomy, we argue that transgovernmental cooperation helps independent regulators minimize political interference in their affairs while building up their reputation and authority. On the one hand, independent regulators, as agents, are always wary of interference by their principals (Thatcher 2002). Independence is not the same as insularity. As Singer (2007) and others have shown, even formally independent and quite powerful regulatory agencies must be responsive to constituents. In the US, legal mandates, such as the Administrative Procedures Act, ensure that regulators engage in constituent dialog as they make rules or else the courts might intervene (Kagan 2001). More broadly, large-scale scandals or regulatory failures cannot only provoke focused intervention by political principals, but even lead to the replacement of a given regulatory regime by a

new order (Singer 2007). Transnational regulatory networks serve as a source of regulatory best practice and capacity building, and we hypothesize that independent regulators, therefore, have an interest to join such organizations in order to improve regulatory quality at home. Moreover, harmonization and enforcement cooperation at the transgovernmental level can reduce interdependence frictions that might reverberate through the domestic political economy. By joining a network, domestic regulators can access information that may forestall regulatory failure, as well as prevent shocks emanating from the global level, thus reducing the likelihood of political intervention at home.

Moreover, independent regulators face a legitimacy problem when compared to the institutional alternatives they commonly replaced, as they are not elected to their posts or benefit from the political base of parties. The literature on bureaucratic autonomy has found that technocratic agencies, therefore, try to build their reputation as an alternative source of authority (Carpenter 2001; Singer 2007). Reputation can then be used as political capital as regulators work to maintain market stability and defend against efforts to weaken regulatory standards (Carpenter 2010). In this context, regulatory cooperation may serve as a powerful mechanism to bolster an independent regulator's legitimacy at home. For many smaller countries, such networks bring regulators in contact with counterparts from leading markets. Members can then reference relationships with other regulators, as well as recognition by the international community as they navigate domestic political reform or policy implementation debates.

The bureaucratic politics and bureaucratic autonomy literatures strongly suggest that the form of domestic regulation matters for global cooperation (Putnam 2009; Bach 2010). All else equal, jurisdictions that have delegated regulatory authority over a given sector should be more likely to join the corresponding transgovernmental network than those that rely instead on institutional alternatives, such as industry self-regulation or ministerial control. It is worth stressing again that neither IOSCO nor IAIS restrict membership to independent regulatory agencies. While expressing a preference for this model, membership is open to any domestic regulatory authority, regardless of its institutional form.

There is considerable anecdotal evidence that supports our expectation. When Armenia's securities regulator joined IOSCO in 2005, its Chairman Eduad Muradyan was clear as to the main benefit: "The importance of membership in this organization is that it first of all enhances the RA Securities Commission's reputation," he explained. In addition, he said, "Armenia's membership in the organization will allow the country to receive the information on other countries' legislation on nonbank financial risk management, which is necessary for the RA Securities Commission's activities." Finally, Muradyan concluded, "From now on the RA Securities Commission has unlimited access to the international experience in the management of nonbank financial markets" (AKRA News 2005). This focus on learning and access to expert know-how was also at the heart of Uzbekistan's decision to seek membership in IAIS for its insurance supervisor: "Membership in this association will allow access to the insurance legislation of IAIS member states and thus will make it possible for Uzbekistan to harmonize its insurance legislation and bring it in line with international standards," a government official explained (PR Newswire 2008). Echoing this sentiment, the Director General of the Jordanian insurance supervisor, Bassel Hindawi, "strongly encouraged the insurance regulatory and supervisory authorities from the [Arab] region to join the IAIS to benefit from and to contribute to the ongoing activities to develop best practices in insurance supervision" (IPR 2004). Finally, when Iraq's insurance regulator – the Insurance Diwan – joined IAIS in 2006, its spokesperson declared that "Membership of the IAIS will help the Diwan to carry out its responsibilities as we can learn from solutions and approaches that have been implemented in other countries, and which may be suitable for Iraq" (Diwan 2006).

### 3.2. Market structure and industry preferences

In addition to examining the incentives and constraints of the regulators, we probe the preferences of the regulated. As the subject of network cooperation is frequently the establishment of industry standards and best practices, transgovernmental networks can have distributional consequences in domestic markets. Agreements on capital adequacy, licensing, or disclosure standards all have potentially significant dollars-and-cents implications for companies (Drezner 2007). Research on regulatory politics, as well as liberal theory in international relations, suggests that domestic firm pressure will affect a jurisdiction's decision to join a regulatory network. Liberal theory generally expects the interests of large industries to inform state preferences in international relations (Frieden & Rogowski 1996). At the most basic level, we hypothesize that firms affected by regulation set globally will be interested in having their jurisdiction represented in such negotiations. Network membership plays two important roles for firms. On the one hand, it offers industry an opportunity to lobby for rules that will help them compete. On the other hand, it offers an information channel through which the firms can learn and prepare for rules that might be coming in the near future (Büthe & Mattli 2011). Singer (2007) shows, for the case of financial markets, the link between industry interests and a jurisdiction's preferences for regulatory cooperation. Regulators must address the concerns of key domestic stakeholders or risk constituent pressure on regulators' political principals. At the same time, principals will be more likely to take action if the sector in question is large and domestically important. Size and salience determine to what extent turbulence in the sector could disrupt the domestic economy and, thus, become a source of powerful political pressure (Copelovitch & Singer 2008). That is why we suspect that relative sector size is another domestic variable driving jurisdictions' decision to join a given network.

When it comes to the relative domestic importance of securities and insurance markets, jurisdictions vary widely. In 2006, for example, the total value of the Ugandan stock market amounted to barely more than one percent of the country's GDP. Mongolia, Tanzania, Uzbekistan, Paraguay, and Venezuela are countries whose respective stock markets in 2006 were worth less than five percent of each country's GDP. In these cases, all else equal, we would expect the pressure on domestic regulators to get a seat at the global negotiation table to be quite low. In sharp contrast, the total value of all firms listed on the Hong Kong stock exchange in 2006 was nine times the size of Hong Kong's economy. Switzerland, South Africa, Iceland, Jordan, and Singapore are among the diverse set of countries whose total stock market capitalization amounted to more than double their respective GDP in 2006. In these cases, industry pressure to be represented – and the salience of such pressure domestically – should be quite high. Variation in sector size reflects on the one hand the maturity and development of the financial system – and private property – more broadly. On the other hand, even among developed countries, the size of the stock market varies: (a) with the importance that equity finance has, as compared to debt finance in the domestic economy (Zysman 1983; Kitschelt *et al.* 1999), and (b) with the extent to which a given jurisdiction attracts foreign listings and capital and, thereby, serves as a global finance hub (Sassen 1991).

Similarly, the size of the insurance sector varies widely across jurisdictions. In countries as diverse as the Cayman Islands, South Africa, the UK, Taiwan, and the Netherlands, it accounted for between 12 and 16 percent of GDP in 2006. In contrast, Armenia, Uzbekistan, Syria, Saudi Arabia, and Algeria are countries where the total contribution of the insurance industry to the domestic economy was less than one percent of GDP.

Anecdotal evidence underscores the plausibility of this expectation as well. For instance, in 2004, the Bahamas decided to adopt IOSCO guidelines for financial licensing despite the promi-

nence of an earlier, less intrusive domestic registration system. As the legal news service Mondaq (2004) explains, “The Bahamas model for licensing is due to the membership by the Securities Commission of The Bahamas (SCB) in the International Organization of Securities Commissions (IOSCO). Although industry preferred the registration route, it recognised and agreed that IOSCO membership is in the best long-term interest of the funds industry in The Bahamas, since it reinforces the legitimacy of the jurisdiction as one which is properly regulated within established and recognised international standards.” Financial services are a key economic sector on the islands. According to the CIA (2013), “Financial services constitute the second-most important sector of the Bahamian economy and, when combined with business services, account for about 36% of GDP.”

A very similar argument was made at the other end of the world and in a completely different setting. When making a public pitch for his country joining IOSCO, Heydar Babayev, Chairman of the State Securities Committee of Azerbaijan, told the media: “Membership in IOSCO will enable Azerbaijan to improve its interaction with overseas investors for whom the country’s being this organisation’s member will be the sign of civilisation and the transparency of its market. The market is progressing successfully in general doubling its turnovers every year, but the quality leaves much to desire yet” (Azer-Press 2003).

Our two hypotheses can be summarized as follows:

*H1: A jurisdiction that has delegated regulatory authority over its securities (insurance) industry to an independent regulatory agency is more likely to join the transgovernmental securities (insurance) network than a jurisdiction that regulates the sector through institutional alternatives.*

*H2: The larger the securities (insurance) industry as a share of the domestic economy, the greater the likelihood a jurisdiction will join the transgovernmental securities (insurance) network.*

#### 4. Econometric analysis

To evaluate our argument about the role of domestic politics, we examine econometrically a broad range of factors that might account for variation in transgovernmental membership on new panel data covering the decision of jurisdictions to join IOSCO and IAIS. For reasons explained further, we employ discrete event history analysis, the methodology of choice for policy decisions that unfold unevenly across units and time. We begin our analysis of IOSCO in 1983 and our dataset includes yearly observations for 129 jurisdictions up to to 2006. Our sample for the analysis of IOSCO membership was drawn from all countries that have a stock exchange in a given year, not only those countries that are currently IOSCO members. A jurisdiction enters the dataset in the year it opens a stock exchange. A jurisdiction exits the analysis the year after its regulator joins IOSCO. This results in 1363 country-year observations. For our analysis of IAIS, we collected data from 1995 to 2006, dating, again, back to the organization’s beginning. As any country could have an insurance industry, we use the countries covered in the World Development Indicators (WDI) database of the World Bank as the source for our sample. In our analyses of the insurance sector, we examined 148 jurisdictions. Jurisdictions enter the dataset in 1995, the year of IAIS’ founding, and then exit the year after they join the organization, resulting in 961 country-year observations. Our dependent variable is formal membership in the organization. Each network maintains a registry of

members and we obtained the dates of entry into the organizations from IOSCO and IAIS directly.<sup>11</sup>

We used two indicators to examine our argument about the causal centrality of domestic politics. Our first hypothesis concerns the institutional form of domestic market regulation. For each country-year, we collected data on the independence of regulatory supervision for each of the two sectors. This variable is coded dichotomously: 1 if the jurisdiction had an independent regulator for the sector in a given year, and 0 if it did not. Independence in this context means that sector supervision is not under the direct control of elected officials, political appointees, or industry. Instead, supervision occurs at arm's length by public sector technocrats to whom regulatory authority for the sector has been delegated. According to Thatcher and Stone Sweet (2002, p. 3), "[d]elegation is an authoritative decision, formalized as a matter of public law, that (a) transfers policy making authority away from established, representative organs (. . .), to (b) a non-majoritarian institution, whether public or private."<sup>12</sup> The data on regulatory independence in the securities and insurance sectors come from Jordana and Levi-Faur who maintain an extensive dataset on agency independence across a broad range of sectors, as well as across time (Jordana *et al.* 2011). We supplemented their data with our own primary research to fill in the gaps. While we note the limits of a dichotomous indicator for regulatory independence, we have not found a more sensitive measure with sufficient coverage in terms of time and countries. Moreover, dichotomous measures of regulatory independence have been frequently employed in such large time series analyses (Gilardi 2005; Jordana *et al.* 2011).

Our second hypothesis concerns the role of the respective sector's size in the domestic economy. In the case of securities markets, we used the total market capitalization of firms traded on the domestic stock exchanges as a percentage of GDP. Data on stock market capitalization comes from the World Bank's World Development Indicators. In the case of insurance, we collected data on the value of total insurance premiums written as a percent of GDP. We obtained data on insurance premiums from Swiss Re and the Axion Corporation.

A range of other factors can motivate a jurisdiction to join a transgovernmental network. We, therefore, employ a range of control variables that have been suggested in literature on transgovernmental cooperation, formal international organization membership, and diffusion. Chief among these is the integration of a country's economy into global markets. Arguably, the more open and more globally integrated the economy, the more rules promulgated by a transgovernmental network might affect domestic market players. We, therefore, include a measure specifically of financial integration.<sup>13</sup> We focus on the amount of foreign direct investment (FDI) inflows in a given year as a percent of GDP, a good measure of the role and prominence of foreign investors in domestic markets, as well as economic openness and global integration.

International interdependence can also affect membership decisions through peer pressure. Competitive isomorphism has featured prominently in recent studies of international policy diffusion (Simmons & Elkins 2004; Simmons *et al.* 2006). As countries compete to attract capital and investment, they mimic the policy decisions of neighboring countries. We, thus, include a measure of the percentage of countries in the vicinity that have already become a member of the transgovernmental network.

Third, we include a binary indicator of whether a country has a firm headquartered within its territory that is listed on a US stock exchange. US exchanges are the largest and most liquid in the world, which is why so many foreign firms list there (Simmons 2001). However, this subjects these firms to US jurisdiction when it comes to securities law and corporate governance rules. US listings are, thus, a good indicator of a country's international integration and exposure to international economic and political dynamics.

In our analysis we include a number of indicators common in studies of global governance, and specifically membership in international organizations (Shanks *et al.* 1996; Mansfield & Pevehouse 2006). We control for GDP per capita as wealthier countries may overall be more likely to join any international network. We include the common measure of major power status from the Correlates of War database, which has been found significant in studies of international organization membership (Correlates of War Project 2011). On the political front, the extent of individual rights is measured through the Freedom House Index, which assesses countries' liberties on a scale from 1 (free) to 7 (not free). The intuition here is that more democratic countries may be more likely to participate in international forums as they stress deliberative policy coordination and market transparency. Finally, as additional controls found in the membership literature, we constructed dummies to measure a country's legal tradition (0 civil and 1 common law), whether the country has undergone a post-communist transition (0 no transition and 1 a transition), and whether it is an EU member (0 no member and 1 member). Additional information regarding the variables and their sources, as well as descriptive statistics, are given in the Appendix.

For the empirical analysis, we employ a duration analysis known as discrete event history analysis.<sup>14</sup> This methodology explores the probability that a unit will experience a particular event in a period of time, given that the event has not already transpired. Discrete event history analysis is appropriate when data is not collected continuously in time, but rather at specific moments. As is the case with much data in international relations, observations occur in large increments of time, such as years, and discrete models are, thus, preferable to calculate the hazard rate and approximate a Cox model (Box-Steffensmeier & Jones 2004). Given that observations occur at discrete points in time,  $t_i$ , the function for a discrete random variable can be written as  $\Pr(T = t_i)$ , while the survival function for the discrete random variable can be written as  $\Pr(T \geq t_i)$ . As the hazard rate is equivalent to the probability of failure to the probability of survival, the hazard rate including covariates can be expressed as:

$$h(t) = \Pr(T = t_i | T \geq t_i, x).$$

Because the dependent variable in discrete event history analysis is binary (the event occurring vs. not occurring), we are interested in the probability of an event occurring  $\Pr(y_{it} = 1) = \lambda_i$  versus the probability of nonoccurrence  $\Pr(y_{it} = 0) = 1 - \lambda_i$ . We can then use the logit function to specify a distribution for the model:

$$\text{Log}(\lambda_i / 1 - \lambda_i) = \beta_0 + \beta_1 x1_i + \beta_2 x2_i.$$

The discrete-time model is analogous to a parametric model with an exponential distribution (Amemiya 1985; Box-Steffensmeier & Jones 2004). As the underlying hazard in the model is a constant, it is important to account for possible time and duration dependencies. To do this, we follow Carter and Signorino (2010) and include a polynomial cubic count variable.<sup>15</sup> To correct for possible country effects, we cluster by country using the clustering procedure in Stata 12 and report robust standard errors. Additionally, we lag the neighborhood variable one time period, as is customary in diffusion studies.

We run two separate sets of analyses for the two different dependent variables. First, we estimate the likelihood that a country will join IOSCO in a given year. We then conduct a second analysis estimating the likelihood of joining IAIS. We begin each analysis with a stripped-down

model isolating the possible effects of domestic political economy factors, regulatory form, and sector size. We then compare this to a full model that incorporates measures of global market integration and control variables identified in the literature. Differences in the number of observations between the two sectors stem from the different periods that a jurisdiction is considered at risk in the two sectors, not missing data. If a jurisdiction opens a stock exchange in 1990, but joins IOSCO in 2000, then the jurisdiction will have 11 country-year observations. If the same jurisdiction, however, enters the dataset for insurance in 1995 and joins IAIS in 1999, then the jurisdiction will have only five country-year observations.

## 5. Results

Table 2 reports the results of the logit regression estimate for membership in IOSCO and IAIS. The findings strongly support the domestic politics hypothesis, as both regulatory structure and relative sector size have positive and statistically significant associations with a jurisdiction's likelihood of joining the respective network. This association holds in both a stripped-down model (1 and 3, Table 2) and one that includes all other variables (models 2 and 4, Table 2). The association of *Regulatory Structure* and *Sector Size* are not only statistically significant and positive, but also substantively quite large. The odds of a country joining IOSCO increase by more than a factor of three for jurisdictions with independent regulators compared to those featuring institutional alternatives, holding all other variables constant. Similarly, holding all other variables constant, the odds of a country joining IOSCO increases by a factor of 1.26 for each standard deviation increase in the size of the country's stock market relative to GDP. For IAIS, the odds of a jurisdiction joining increase by a factor of nearly 1.48 for each standard deviation increase in the size of the insurance sector relative to GDP and by a factor of four if the country has an independent insurance regulator. The fact that the same domestic variables are significant across the two sectors, and regardless of model specification, lends considerable empirical support to our intuition about the importance of domestic political economy in accounting for membership patterns.

Clearly, domestic political factors are not all that matters. For the case of IOSCO, we find that the variable capturing a foreign listing on the New York Stock Exchange is statistically significant with a positive coefficient (model 3). In contrast, and perhaps most surprisingly, we find no association between the amount of foreign investment a country receives, a clear indicator of financial integration, and its decision to join networks regulating global finance. Similarly, we cannot find strong evidence for an association between neighboring countries' membership status and a jurisdiction's decision to join either transgovernmental network. Lastly, when it comes to IAIS membership, none of the global integration variables are statistically significant (model 4, Table 2).

We find considerable statistical support for variables identified in the literature as associated with membership in more traditional international organizations. The variable capturing major power status is statistically significant and carries the expected sign in both cases (model 2 and 4, Table 2). The overall level of economic development, as measured by GDP per capita, is associated with membership in IAIS. Similarly, a higher level of political freedom is associated with a higher likelihood of membership in IOSCO. Even though the existing literature on network-based transgovernmental cooperation touts it as a new and distinct form of global governance, our results suggest that participation patterns have a lot in common with more traditional international organizations (Shanks *et al.* 1996; Mansfield & Pevehouse 2006). What is distinct, however, and has hitherto been overlooked, is the important role played

**Table 2** Discrete event history analysis for membership in the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS)

Variables	IOSCO		IAIS	
	Model (1) Domestic Political Economy	Model (2) Full IOSCO	Model (3) Domestic Political Economy	Model (4) Full IAIS
<i>Domestic Political Economy</i>				
SECTOR SIZE	0.5482* (0.2527)	0.8124** (0.2762)	33.1910** (5.7252)	21.3841** (5.4081)
REGULATORY STRUCTURE	1.5784** (0.2245)	1.207** (0.2276)	1.6262** (0.2830)	1.4055** (0.3096)
<i>Control variables</i>				
FDI INFLOW		0.0221 (0.0621)		0.0107 (0.0113)
NEIGHBOR MEMBERSHIP		0.2195 (0.3873)		0.8084 (0.4872)
NY STOCK EXCHANGE		0.8197* (0.3308)		-0.1504 (0.4618)
MAJOR POWER		1.1217** (0.3546)		1.8062* (0.7063)
LOG GDP PER CAPITA		<b>0.1270</b> (0.0868)		0.4926** (0.0892)
FREEDOM HOUSE		-0.1802* (0.0715)		-0.0615 (0.0734)
TRANSITION COUNTRY		-0.1793 (0.3998)		0.6270 (0.3613)
COMMON LAW		-0.1728 (0.2456)		0.4684 (0.3701)
EU MEMBERSHIP		<b>-0.4292</b> (0.3677)		-0.1244 (0.7883)
<i>Log pseudo likelihood</i>	-308.92	-273.41	-225.99	-205.22
<i>Wald chi2</i>	63.95	136.97	112.10	135.60
<i>Observations</i>	1363	1131	961	912
<i>Number of countries</i>	129	122	148	143

Notes: Robust standard errors are in parentheses. \*significant at 0.05; \*\*significant at 0.01. EU, European Union; FDI, foreign direct investment; GDP, gross domestic product; IAIS, International Association of Insurance Supervisors; IOSCO, International Organization of Securities Commissions.

by domestic political economy variables, such as sector size and the institutional form of market regulation.

In order to bolster confidence in our results, we conducted a number of additional tests. First, we reassessed our measure of global integration. Rather than employing FDI, we included trade openness, a more traditional measure, or economic integration. We also included sequentially a variable capturing capital account liberalization, a precondition for financial openness, as well as the number of per capita phone lines. None of these models significantly changed our results, as our key variables of interest – regulatory structure and sector size – retained their statistical significance and positive association with membership across both networks.

Second, we ran analyses to guard against concerns of multicollinearity between our independent variables. We tested collinearity in the two models using a tolerance test. This test examines the amount of interrelationship between the independent variables and the stress that this places on the model. Tolerance scores range from 0 to 1 and a score of 0.1 or less is typically recognized as cause for concern. Neither model demonstrated significant collinearity, with tolerance scores ranging from 0.97 to 0.45. Moreover, we looked specifically at the relationship between our two key independent variables of interest – regulatory structure and sector size. Here we calculated a point-biserial correlation coefficient, which is used to determine the relationship between a dichotomous variable and a continuous variable, for the year 2006. As is the case with standard correlation coefficients, the score is reported between  $-1$  and  $1$  with a score close to  $0$  suggesting no correlation. There was no statistically significant correlation between the structure of the regulator and the size of the sector in either insurance or securities, with coefficients of  $0.07$  and  $0.12$ , respectively. While further work will be necessary to determine

**Table 3** Cox model for membership in the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS)

Variables	IOSCO	IAIS
<i>Domestic Political Economy</i>		
SECTOR SIZE	0.5618** (0.1555)	9.6686** (2.9364)
REGULATORY STRUCTURE	1.007** (0.1913)	0.9002** (0.1983)
<i>Control variables</i>		
FDI INFLOW	0.014 (0.0468)	0.0135 (0.009)
NEIGHBOR MEMBERSHIP	0.1504 (0.3429)	0.3194 (0.3223)
NY STOCK EXCHANGE	0.6422** (0.2396)	-0.1966 (0.2462)
MAJOR POWER	0.7073** (0.2495)	-0.02267 (0.3085)
LOG GDP PER CAPITA	0.1059 (0.0763)	0.3502** (0.06686)
FREEDOM HOUSE	-0.1532* (0.062)	-0.0316 (0.0548)
TRANSITION COUNTRY	-0.1113 (0.3338)	0.5653* (0.2575)
COMMON LAW	-0.2229 (0.2097)	0.3219 (0.2169)
EU MEMBERSHIP	-0.293 (0.2943)	-0.1176 (0.2389)
<i>Log pseudo likelihood</i>	-336.42	-389.75
<i>Wald chi2</i>	137.05	112.95
<i>Observations</i>	1131	910
<i>Number of countries</i>	122	143

Notes: Robust standard errors are in parentheses. \*significant at 0.05; \*\*significant at 0.01. EU, European Union; FDI, foreign direct investment; GDP, gross domestic product.

the full relationship between regulatory structure and sector size, we are confident that it is not significantly affecting the reliability of our model.

Third, we conducted an additional analysis using a Cox model. While the discrete event history analysis is preferred in cases where data is collected over longer time increments, such as years, we wanted to be sure that the logit functional form or the discrete event history set-up was not driving our results (Box-Steffensmeier & Jones 2004). Cox models require continuous data, so we reorganized our dependent variable as a count measure indicating time to membership, along with a dummy variable capturing whether or not the observation is right censored. Cox models do not require a specification of the distributional form of duration dependence and are, thus, better for resolving temporal autocorrelation issues when no theoretical expectation concerning duration dependence is present (Box-Steffensmeier & Jones 2004). The re-analysis using a Cox model further supports the association between domestic political economy factors and membership (see Table 3). Our measure of regulatory structure and sector size retain statistical significance and carry a positive sign in relation to a country's membership in IOSCO and IAIS.

## 6. Conclusion

The first systematic empirical exploration of variables associated with jurisdictions' membership in transgovernmental regulatory networks yields a range of intriguing findings for both research and public policy. First, we find important empirical similarities across the two cases, securities and insurance. It would have been entirely plausible that different variables are associated with membership in the two respective networks. As highlighted, the theoretical literature in this domain is rather thin and there is nothing that should suggest, a priori, that membership in different networks should be driven by the same factors. This makes the finding that the same set of variables – the independence of domestic sector regulators and relative sector size – are associated with membership in both networks particularly interesting. It also strengthens our confidence that causal processes emanating in the context of the domestic political economy play a key role in shaping membership in open transgovernmental networks, not just in securities and insurance, but probably elsewhere.

We have sketched a plausible argument about the role of domestic political mobilization in favor of membership (which should be positively associated with relative sector size), the relative autonomy of regulators to pursue foreign links (independent regulators should be less constrained than those under closer watch of elected officials), and the need, particularly for independent regulatory agencies, to attain status and legitimacy while improving regulatory quality. Anecdotal evidence from a range of countries supports a causal story along these lines. However, more thorough process tracing is necessary to scrutinize the exact causal mechanisms at play. A second promising line for future inquiry would, thus, expand the empirical scope to other policy domains, such as competition policy or the environment.

An additional important finding concerns the variables themselves: sector size relative to GDP and the independence of domestic agencies regulating the sector. These domestic variables stand in contrast to factors stressing global integration and international interdependence that have dominated the literature on transgovernmental politics. Our results do not “disprove” that international factors matter. In fact, it is entirely possible that international factors, including competition with foreign jurisdictions, mimicry, or even coercive pressure that have been identified in the policy diffusion literature, affect domestic policy debates about sector reform. Laurence (1999) and Lütz (1998), for example, show how international factors shaped the debate in Germany and other countries about whether to create an independent securities regulator.

Our results do, however, link to recent studies that highlight the importance of incorporating domestic factors into diffusion arguments (Brooks 2005) and we extend this line of inquiry to transgovernmental cooperation.

Research on transgovernmental cooperation has enriched our understanding of global governance over the past decade by (re-)focusing our attention on the crucial role played by cross-border networks among domestic regulatory actors. Whereas pioneering studies persuasively argued that growing international independence spurs transgovernmental cooperation, this study shows that individual jurisdictions' decisions whether to join a given network are theoretically and empirically distinct from the onset of cooperation itself. Far from an inevitable, broad-based, and homogenous wave sweeping across jurisdictions, applications for membership in transgovernmental regulatory networks, such as IOSCO and IAIS, trickle in gradually, forming seemingly odd patterns with considerable variation across geographic space and time. Taking the analysis to the level of domestic political economy allows us to make some sense of puzzling membership patterns. It also suggests that the conventional, fairly apolitical view of transgovernmental cooperation driven only by international factors can no longer be sustained.

## Notes

- 1 Slaughter (2004) popularized the label. We use the term “regulatory network” to refer to ongoing and institutionalized transnational interactions among domestic actors, both public and private, engaged in market organization and control. This should not be confused with literature on social network analysis, which also uses the term “network.”
- 2 See, for example, Bermann (1993), Raustiala (2002), Cardenas (2003), Slaughter (2004), Lipson (2005–2006), Damro (2006), Singer (2007), Eberlein and Newman (2008), Newman (2008), Thurner and Martin (2009), Bach (2010), and Bach and Newman (2010a).
- 3 Keohane and Nye (1974), Hopkins (1976).
- 4 As is common in many studies of domestic institutional design for market regulation, we distinguish technocratic and fairly apolitical regulation by an independent regulatory agency with delegated authority from more politicized ministerial oversight or other non-delegated arrangements in binary fashion. See Thatcher and Stone Sweet (2002). We do not explore other dimensions of institutional variation, such as for instance the degree of concentration or fragmentation of domestic regulatory authority.
- 5 Putnam (2009). For a review, see Frieden and Martin (2002).
- 6 Openness of the transgovernmental network in question to all qualifying jurisdictions is a boundary condition for our argument. The domestic political dynamics we explore could conceivably play a role in motivating a jurisdiction's desire to join a more exclusive network as well; however, the two-way dynamics of invitation-only networks add a level of complexity that goes beyond the scope of the present study.
- 7 For a comparable focus on membership in formal international organizations, see Mansfield and Pevehouse (2006).
- 8 These data and the rest of our analysis refer to “ordinary” members. IOSCO has two additional membership categories, “associate” and “affiliate.” The network's dozen or so associate members are public entities, other than the country's main securities regulator, and include sub-state regulators, such as the Alberta Securities Commission, regional regulators, such as the European Securities and Markets Authority, or ministries with stakes in this field, such as Japan's Ministry of Economy, Trade and Industry. In 2013, there were also more than 60 affiliate members. These are for the most part individual stock exchanges or private sector securities associations from jurisdictions that already have an ordinary IOSCO member. IOSCO created the affiliate member category primarily to enable stock

- exchanges that had joined the network during its early years to remain involved once domestic regulatory reform led to a regulatory agency or other governmental body to become the country's ordinary member. The ordinary member is, thus, by definition a country's first representation in IOSCO and, therefore, the right membership category for our empirical examination. See IOSCO (1995). Current membership lists are available at <http://www.iosco.org/lists/>
- 9 Author interview.
  - 10 Many of these have kept a tie to the organization as non-voting affiliate members.
  - 11 For membership registries see [http://www.iosco.org/lists/display\\_members.cfm?memID=1&orderBy=none](http://www.iosco.org/lists/display_members.cfm?memID=1&orderBy=none) and <http://www.iaisweb.org/IAIS-members-31>
  - 12 They go on to define "non-majoritarian institutions" as "entities that (a) possess and exercise some grant of specialized public authority, separate from that of other institutions, but (b) are neither directly elected by the people, nor directly managed by elected officials" (Thatcher & Stone Sweet 2002, p. 2). This definition is consistent with our notion of regulatory independence.
  - 13 Because of the breadth of countries we include in our analysis, as well as the long observation period, not all indicators of financial integration are readily available. For instance, panel data on portfolio investments or the share of foreign trading in domestic stock exchanges is simply too spotty.
  - 14 This method has been widely used in International Relations studies. See, for example, True and Mintrom (2001) and Kroenig (2009).
  - 15 Carter and Signorino (2010) argue that in discrete event history models, the polynomial cubic count variable is preferable to the more complex procedure suggested by Beck *et al.* (1998). We do not report the cubic polynomials, as we have no a priori assumption about time effects.

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## Appendix

### Descriptive statistics and data sources

	Variable	Minimum	Maximum	Mean	Standard deviation	Source	
<i>Dependent variables</i>	<i>Membership in IOSCO</i>	0	1	0.066	0.2492	IOSCO and Authors	
	<i>Membership in IAIS</i>	0	1	0.088	0.2836	IAIS and Authors	
<i>Control variables</i>	<i>Foreign Direct Investment Inflows/GDP</i>	-145.27	116.14	2.14	5.432	UNCTAD 2013	
	<i>Neighbor Membership IOSCO</i>	0	1	0.484	0.4109	IOSCO and Authors	
	<i>Neighbor Membership IAIS</i>	0	1	0.415	0.3786	IAIS and Authors	
	<i>Firm listed on NYSE</i>	0	1	0.123	0.3288	NYSE data from SEC	
	<i>Major Power</i>	0	1	0.032	0.1749	Correlates of War Project (2011)	
	<i>Log GDP per capita</i>	4.13	11.64	7.79	1.567	World Bank Development Data Group (2009)	
	<i>Extent of personal freedom</i>	1	7	3.57	2.013	Freedom House	
	<i>Post-Communist transition</i>	0	1	0.168	0.3743	Freedom House	
	<i>Legal tradition</i>	0	1	0.384	0.4865	Beny 2002	
	<i>EU Membership</i>	0	1	0.078	0.2688	European Union	
	<i>Domestic Political Economy</i>	<i>Stock exchange capitalization/GDP</i>	0	9.04	0.318	0.5619	World Bank Development Data Group (2009)
		<i>Insurance Premiums/GDP</i>	0	1.36	0.032	0.0496	Swiss Re/Axion
		<i>Securities Regulator</i>	0	1	0.459	0.4984	Jordana <i>et al</i> (2011) and Authors
		<i>Insurance Regulator</i>	0	1	0.323	0.4675	Jordana <i>et al</i> (2011) and Authors

FDI, foreign direct investment; GDP, gross domestic product; IAIS, International Association of Insurance Supervisors; IOSCO, International Organization of Securities Commissions; NYSE, New York Stock Exchange; SEC, US Securities and Exchange Commission.

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