Policy punctuations in global governance: Evidence from five international organizations, 1980-2015

Magnus Lundgren
Stockholm University

Theresa Squatrito
University of Oslo

Jonas Tallberg
Stockholm University

Thomas Sommerer
Stockholm University

Abstract

In recent decades, international organizations (IOs) have developed into important policy venues beyond the nation state. Yet our understanding of broader policy dynamics within IOs is limited. In this paper, we investigate the evolution of IO policy agendas, seeking to describe and explain patterns of stability and change. Drawing on punctuated equilibrium theory, we examine the policy output of five general-purpose IOs between 1980 and 2015. Based on statistical analysis of nearly 20,000 content-coded individual decisions, we find that policy processes in all five IOs are subject to punctuations. We also find that IOs with higher institutional friction, as determined by decision rules, membership size, and heterogeneity of membership preferences, display more frequent punctuations. This paper represents the first systematic, multi-N study of policy punctuations in the international domain. The results suggest that the theory of punctuated equilibrium in public policy, which has been demonstrated in a wide range of contexts at the domestic level, extends to policy-making in IOs. The results also suggest that IOs are more amenable to change than conventionally expected in global governance research.

Key words: international organizations, policy agendas, punctuated equilibrium, decision-making efficiency, automatized text analysis

Word count: 9,224

Over recent decades, international organizations (IOs) have developed into important policy venues beyond the nation state. Not only have we witnessed a continued growth in the number of IOs in world politics (Shanks et al. 1986, UIA 2015), but more importantly, these organizations have been vested with more far-reaching policy-making authority in an ever increasing range of domains (Hooghe and Marks 2015, Zürn et al. 2015). While some of these IOs are task-specific organizations that specialize in particular policy domains, such as the International Atomic Energy Association (IAEA), others are general-purpose organizations that cover the full range of problems confronting a set of member states, such as the European Union (EU) (Lenz et al. 2015). Part of this expansion of international authority has come at the expense of national policy-making, while another part responds to new problems not previously dealt with domestically. Accordingly, it has become increasingly common to speak of "global health policy," "global trade policy," and "global environmental policy."

Yet, despite this development, we know little about the broader dynamics of IO policy-making. How responsive is IO policy-making to changing societal demands and pressing global problems? Are policy agendas marked by stability, possibly because of institutional rigidities or powerful status-quo interests? Or are policy agendas marked by frequent and sudden changes, possibly because of ideational fads or shifting coalitions? Expressed differently, are IOs performing by flexibly delivering policy aimed at solving urgent needs and problems?

To gain traction on central issues such as these, this paper engages in the first systematic and comparative large-N exploration into macro patterns in IO policy-making. We ask two specific questions. First, what dynamics of stability and change characterize the policy agendas of IOs? Second, how may we explain variation across IOs in these dynamics?

Theoretically, we turn to the study of policy agendas in American and comparative public policy for inspiration. The most powerful expectation in this area originates from punctuated equilibrium theory (PET), originally developed by Baumgartner and Jones (1993) and subsequently refined by others (Baumgartner, Green-Pedersen, and Jones 2006, Jones and Baumgartner 2005, Jones, Sulkin, and Larsen 2003). According to PET, policy agendas are defined by incremental change that is periodically punctuated by episodes of rapid change. Because political attention is scarce and institutions are marred by friction, policy agendas are marked by stability and only shift in the relative attention to different issues under particular circumstances. Empirical research in American and comparative public policy has consistently shown that policy dynamics tend to follow the distinct pattern predicted by PET.

With the exception of the EU, where it has been found to hold, PET has never been systematically tested on a broad range of IOs.[1]

Empirically, we examine the policy output of five general-purpose IOs between 1980 and 2015, based on newly gathered data on nearly 20,000 individual decisions. The IOs are the African Union (AU), EU, Organization of Islamic Cooperation (OIC), Organization of American States (OAS), and United Nations (UN). The IOs have been selected to ensure wide geographical scope, a focus on general-purpose organizations, and comparable policy output. The empirical analysis maps the overall pattern in IO policy attention, evaluates the presence of policy punctuations, and assesses explanations of variation in punctuation across the five IOs.

We find that all IOs in our sample have policy agendas that reflect the patterns central to PET. Frequency distributions of year-on-year policy changes for the five organizations exhibit signs consistent with the presence of agenda punctuations: most of the time, agendas remain static or subject to incremental change, but occasionally, there are dramatic shifts in the amount of attention awarded a particular policy area. The findings further indicate that such shifts are more pronounced among IOs where decision-making is associated with higher institutional friction, as measured by decision rules, membership size, and heterogeneity of membership preferences.

These results suggest three broader implications for research on public policy and global governance, further developed in the conclusion. First, the predictive power of PET extends to policy-making in IOs. The level of political organization appears secondary, as patterns and relationships found to hold in domestic politics are equally prominent in global policy-making. Second, IOs are more amenable to change than conventionally expected in global governance research, but these dynamics follow a very particular pattern. Third, institutional friction is a neglected aspect of policy change in global governance, as the dominant accounts privilege shifts in the distribution of state power, changing government preferences, or norm change through social mobilization.

This paper unfolds in four parts. First, we present punctuated equilibrium theory and our expectations about the dynamics of IO policy agendas. Second, we introduce our data on the policy agendas of the five IOs. Third, we empirically test our theoretical expectations using an analysis of the distribution of policy change and a comparative analysis of IOs. Last, we conclude with a discussion of the implications of our findings.

[1] Some recent literature has applied the concept of punctuated equilibrium to change in international regimes and regime complexes (Young 2010; Colgan, Keohane, and Van de Graaf 2011).

The Argument: Punctuated Equilibrium Theory and International Policy-Making

We suggest that PET offers a fruitful approach for understanding the policy dynamics of IOs. In the following, we first outline the general tenets of PET, then explain why it is potentially applicable to IOs, and finally identify specific hypotheses for empirical testing.

Baumgartner and Jones (1993) developed PET to explain the tendency of policy agendas to be stable and change incrementally most of the time with interruptions of periodic abrupt shifts. PET builds on the assumption that governmental attention is scarce. Governing entities have a limited capacity and cannot attend to all policy problems. Moreover, the problems that do receive attention do so to varying levels. Over time, agendas will change as policy-makers respond to new information and attention shifts from some issues to others (Baumgartner, Jones, and Wilkerson 2011). Long periods of inattention can be supplanted by short periods of attentiveness due to shifts in factors such as framing, social mobilization, or venue control (Baumgartner, Green-Pedersen, and Jones 2006, 961).

Empirically, this dynamic of punctuated equilibrium has been established in several studies on American public policy, comparative public policy (for example, Breunig 2006, Mortensen et al. 2011, Baumgartner et al. 2009), and more recently in EU public policy (Alexandrova, Carammia, and Timmermans 2012). In addition, punctuated equilibria are observed in cross-sector analyses covering a range of different policy fields, including public health policy (Baumgartner and Jones 1993), environmental policy (Repetto 2006), and welfare policy (Jensen 2009).

Despite the extensive literature on policy agendas, policy punctuations have not been systematically studied in the international domain. Yet there are good reasons to expect that PET would wield predictive power in this setting as well. First, IOs are policy venues, just like the national policy venues for which PET was originally formulated. A policy venue can be defined as an institution or group that has authority to make decisions on issues (Baumgartner and Jones 1993, 31). This characterization applies to IOs, and increasingly so, since IOs have been conferred growing authority over recent decades (Hooghe and Marks 2015, Zürn et al. 2015). As Barnett and Finnemore state, IOs "make authoritative decisions that reach every corner of the globe and affect areas as public as governmental spending and as private as reproductive rights" (2004, 1).

Second, much like national political systems, IOs experience attention scarcity, in the sense that the number of issues deserving political attention exceed the capacity of policy-makers to develop rules and norms. This goes particularly for general-purpose IOs, which share the encompassing policy scope of national political systems (Lenz et al. 2015). This leads us to expect that IOs, too, will devote unequal attention to issues and that issues will rise and fall on the agenda in response to more dramatic changes in factors such as social mobilization.

Third, anecdotal evidence suggests that global policy-making is marked by patterns of punctuated equilibria. For example, most observers of world affairs can recall moments when public attention to particular issues spiked, from the global financial crisis in 2008 to the more recent refugee crisis in 2015 and the Zika virus in early 2016. These shifts in attention were observed among IOs as well, as the International Monetary Fund, UN, and World Health Organization struggled to respond to these policy challenges.

Assuming that PET is applicable to global policy-making as well, it generates two core propositions – one descriptive and one explanatory. First, PET posits that one of the key dynamics of policy agendas is that they follow patterns of punctuation where stability alternates with radical change. The cognitive limitations of policy-makers and capacity limitations of institutions cause policy agendas to tend toward relative stability and incremental change. Stability is occasionally broken when attention shifts from one issue to another due to a large-scale event, a previously ignored problem receiving attention, or pressure on a policy reaching a threshold level (Princen 2013, 855). Setting aside the causes leading to individual punctuations, the overall descriptive pattern of policy agendas posited by PET is that long periods of stability and incremental change are punctuated by rapid change.

IOs' policy agendas experience similar dynamics. Recent literature has found that the EU's policy agenda follows a pattern of punctuated equilibria (Alexandrova, Carammia, and Timmermans 2012). IOs understood as autonomous actors have previously been shown to be prone to capacity limitations (Barnett and Finnemore 1999). Similarly, scholarship has illustrated that policy makers operating at the international level, similar to the national level, have cognitive limitations resembling bounded rationality (Poulsen 2014, Jupille, Mattli, and Snidal 2013). Finally, critical events are known to shape political outcomes in world politics (Fioretos 2011, Rixen, Viola, and Zürn 2016). The central conditions contributing to punctuated equilibrium in the national context are thus present in the international domain as well. Thus, we expect IOs' policy agendas to display descriptive patterns of punctuated

equilibrium, characterized by: (1) relatively many instances of no or little change to reflect periods of stability and (2) relatively many cases of radical change to reflect punctuations.

H1: IO policy agendas display attention shifts that involve punctuations.

Second, PET offers a potential explanation of variation across IOs in the degree of policy punctuation. PET submits that institutional friction contributes to the degree of punctuation across organizational contexts. Institutional friction can be understood as the costs involved in the translation of policy inputs to policy outputs (Jones, Sulkin, and Larsen 2003). In other words, institutional friction is the hurdles to policy change in a specific context. As Princen explains: "To the extent that policy-making institutions impose such friction, policy change will be less frequent (leading to longer periods of stability) but once it comes the 'correction' will be greater (leading to larger punctuations)" (2013, 858). Comparative public policy literature confirms that institutional friction conditions the degree to which policy agendas are punctuated (Baumgartner et al. 2009). In all, this literature shows that institutional friction reinforces the degree of punctuation in a policy agenda, such that a higher degree of institutional friction leads to more punctuation (Jones and Baumgartner 2005, Baumgartner et al. 2009).

Institutional friction of IOs is likely to be generated by a combination of three factors: decision rules, membership size, and preference heterogeneity. This expectation is firmly anchored in rational institutionalist scholarship on domestic (Scharpf 1997, Tsebelis 2002) and international (Lake and Powell 1999; Sommerer and Tallberg 2016) policy processes. To begin with, IOs vary in their institutional rules on decision-making (Blake and Payton 2015). Decision rules can contribute to friction, affecting the ability to arrive at policy decisions (Scharpf 1997, Tsebelis and Yataganas 2002). IOs with unanimity rules, in comparison to those with majority voting and weighted voting rules, involve greater hurdles to decision-making. For example, both the UN Security Council and the WTO are IOs where unanimity rules raise barriers to flexible decision-making.

In addition, membership size serves as a source of institutional friction. The number of actors is widely understood as shaping the likelihood and nature of international cooperation (Axelrod and Keohane 1985, Koremenos, Lipson, and Snidal 2001). For IOs, the number of member states can likewise affect the likelihood and ease of decision-making. For example, the ability of NAFTA to arrive at a policy decision is different than for the EU, simply because the former has three member states while the latter has 28. IOs with larger

memberships face greater difficulties in arriving at decisions, all else equal. For this reason, larger membership sizes are likely to increase institutional friction and thus the degree of punctuation in IOs' policy output.

Finally, the preference heterogeneity among member states can contribute to institutional friction in IOs. Previous research has drawn particular attention to how the distribution of preferences among members affects institutional design, institutional change and delegation in international politics (Hawkins et al. 2006, Colgan, Keohane, and Van de Graaf 2011, Koremenos, Lipson, and Snidal 2001, Axelrod and Keohane 1985). When member states' preferences diverge, agreement on new policies or to revise existing policies will be politically difficult. For this reason, preference heterogeneity can create a hurdle to policy-making in an IO. For example, preference heterogeneity among the largest shareholders of the IMF (the G5 countries) has been shown to have an impact on its policy decisions (Copelovitch 2010), as has the preference heterogeneity among EU member states (König 2007). All else equal, the more divergent underlying member state preferences are, the more difficult it should be to reach decisions. Preference heterogeneity therefore adds a layer of friction, increasing the likelihood of policy punctuations.

Accordingly, we arrive at an additional hypothesis:

H2: Policy agendas of IOs subject to greater institutional friction will be characterized by a higher degree of punctuation.

Our hypotheses draw attention to descriptive (H1) and explanatory (H2) patterns in IO policy dynamics. If PET applies to IOs, per H1 we would expect to see patterns of policy punctuations among IOs. Empirically, policy punctuations may be observed in the shape of period-to-period policy change distributions. Our confidence in H1 would be increased if we observe that IO policy change distributions deviate from the normal distribution in a specific pattern known as leptokurtosis, marked by "tall" peaks and "long" tails. If PET can explain variation in punctuation, as per H2 we would expect to see that IOs with higher institutional friction are systematically different from IOs with lower institutional friction. Empirically, high-friction IOs are then expected to exhibit period-to-period change distributions that are more peaked and have longer tails than IOs with lower degrees of institutional friction.

Data on IO Policy Agendas

To evaluate our hypotheses, we gathered separate datasets on the policy agendas of five IOs: the African Union (AU), the European Union (EU), the Organization of Islamic Cooperation (OIC), the Organization of American States (OAS), and the United Nations (UN). This sample of organizations provides a suitable starting point for a comparative analysis of global policymaking for three reasons. First, it has a wide geographic scope, including the paramount global organization, the United Nations, and key regional organizations on all major continents. Second, it includes general-purpose IOs with a broad policy agenda, as opposed to task-specific IOs that are focused on narrow set of issues (Lenz et al. 2015). These are all organizations that deal with a range of issues, from security to development to human rights. Third, the policy output of these IOs has a comparable format and style, in that they all adopt decisions separated by issue and sector (as compared, for instance, with IOs that adopt decisions in an aggregate manner and present them to the world in the form of communiqués). In short, this is a sample of geographically representative IOs with comparable tasks producing comparable policy outputs.

For each IO, we gathered data on key policy outputs (acts) from the principal decision-making body in the period from 1980 to 2015, as per T able 1. In total, the dataset contains 18,523 policy acts with a total length exceeding 100,000 pages.

Table 1: *Overview of data sources*

IO	Years	Type of policy acts	N
African Union[2]	1980-2014	Summit Decisions, Resolutions	846
European Union	1980-2013	Council Directives	2,148
Organization of American States	1980-2014	General Assembly Resolutions	2,161
Organization of Islamic Cooperation	1980-2015	Council Resolutions	2,851
United Nations	1980-2015	General Assembly Resolutions	10,517

[2] Our dataset for the African Union (AU) includes the predecessor organization, the Organization of African Unity (OAU). The OAU transformed into the AU in 2002. At this time, the principal policy output type changed from Decisions to Resolutions, which is why we include both in the analysis.

To identify the allocation of attention across each IO's policy agenda, we first assign a topic code to each policy act, based on a combination of computer-assisted and manual content analysis. For the computer-assisted analysis, we employ a keyword topic classifier (Grimmer and Stewart 2013, Laver and Garry 2000) and a list of topic codes for the main policy areas in global governance (see Appendix 1). The general structure of our policy content categories mirrors that of the codebook of the Comparative Agendas Project (CAP) (for an overview see John 2006), dividing the policy space into a set of general categories that are subsequently divided into more specialized policy domains, each with its own sub-code.[3] The general categories cover the key policy concerns in global governance, including economic development, human rights, and security, but also certain domestic concerns that are subject to frequent international regulation and coordination, such as health policy or labor policy.

We assigned topics to individual policy acts based on the relative frequency of key words drawn from newly constructed topic-specific dictionaries, containing a list of key words for each of our 16 main topic codes. In constructing the dictionaries, we analyzed existing policy research dictionaries[4], policy-specific literature in global governance, and IO policy documentation. To increase specificity, the dictionary for each topic contains both 1- and 2-grams. For example, the dictionary for the "Security and defense" category contains both "conflict" and "conflict prevention," and the dictionary for the "Environment and natural resource management" lists both "climate" and "climate change".

In accordance with standard practice, we prepared documents for quantitative analysis by carrying out a series of text transformations, including stemming (the removal of word ends), tokenization (turning the text into a "bag of words"), and the removal of punctuation, capitalization, and very common words (so called "stop words").[5] For each of the five IOs, we then classified the processed documents by topic, assigning each document the topic code that best corresponded to the content based on keyword frequency. Aggregating across years, we then calculated the distribution of agenda space devoted to a single policy issue, defined as

[3] Since the domestic orientation of CAP policy content categories make them unsuitable for our purposes, we created a new list, geared towards the key concerns of IOs. This allowed us to expand the range of categories available to global governance policy topics and reduce the range of categories exclusive to the domestic sphere, which are rarely on the agenda of IOs.

[4] Extant keyword dictionaries for agenda research have generally been developed for the analysis of domestic policy (Grimmer and Stewart 2013) or for the EU (Alexandrova, Carammia, and Timmermans 2012), and consequently do not contain a sufficient range of topic codes to support a comparative analysis of global policymaking.

[5] All automatized text analysis was carried out using the tm package in R (version 3.2.3). Scripts and dictionaries are available from the authors.

the proportion of policy acts assigned to that topic in relation to the aggregate policy production in the given year.

Empirical analysis

Our key results are summarized in Tables 2 through 4 and illustrated graphically in Figures 1 through 5. We begin by investigating the overall patterns in IO agendas, before assessing the presence of policy punctuations (H1) and possible explanations for variation in punctuation across institutional contexts (H2).

IO agenda patterns

A study of the allocation of policy attention across the agenda of our five IOs (Table 2 and Figure 1) yields patterns of both similarity and variation. Several of the IOs share common features in the distribution of attention across topics. First, all IO agendas display fairly concentrated agendas, where a few topics dominate the body of output. Across the IOs, the top five agenda topics account for between 66 percent (EU) and 83 percent (UN) of the agenda. Second, there is a significant amount of overlap in agenda orientation across IOs. The top concerns of global governance – economic development, human rights and security – are found among the major topics on all IO agendas except that of the EU, which, reflecting the deep integration of its member states, has an agenda oriented slightly more toward domestic policy areas, such as energy and transport, science, and labor. Many IOs spend a considerable amount of their attention on questions of IO governance, which include administration, budgeting, and membership issues. The OIC, however, only devotes two percent of its agenda to IO governance, which may reflect its lower degree of institutionalization. Third, all IOs have agendas that, besides the top items, cover a broad range of minor topics, suggestive of the "long tail" that has been identified for policy agendas in the domestic domain (Breeman et al. 2009). Overall, these are patterns we would expect from general purpose IOs with a wide policy remit.

Table 2: Distribution of policy topics in IO agendas, 1980-2015

Policy topic	AU	EU	OAS	OIC	UN
IO governance	12%	4%	9%	2%	13%
Economic development	21%	2%	23%	13%	19%
Health and social affairs	5%	5%	2%	1%	1%
Human rights	11%	6%	29%	12%	26%
Culture and education	3%	1%	4%	14%	1%
Labor and employment	11%	8%	1%	2%	0%
Law and crime	1%	1%	7%	1%	3%
Governance	1%	3%	2%	0%	1%
Environment	3%	13%	2%	1%	2%
Agriculture and commodities	2%	7%	1%	1%	1%
Energy and transport	2%	19%	1%	1%	1%
Science and technology	3%	8%	2%	1%	2%
Trade and industry	3%	3%	4%	4%	1%
Finance and monetary	5%	17%	4%	6%	2%
Security	12%	0%	10%	20%	22%
International affairs	1%	0%	1%	20%	3%
Top five topics	68%	66%	77%	78%	83%
TOTAL N	798	2,091	2,397	2,851	10,517

Within each IO, there is considerable temporal variation both in the scope of the agenda and the amount of attention devoted to individual topics (Figure 1). The data are suggestive of volume punctuations in all IOs. The OAS and EU exhibit signs of short-term changes followed by a return to long-term average volume levels, and the UN and OIC exhibit marked shifts followed by relative stability around new equilibria. In the case of the OIC, the scope of the overall agenda describes a trajectory suggestive of ebb and flow, with a marked peak in 2003 followed by a period of lower policy production. Similar surges can be seen in the AU, around the time the OAU transitioned into the new institutional structure of the AU, and the UN, after the end of the Cold War.

[Figure 1 about here]

With respect to agenda attention, there is evidence both of stability and change in each of our five IOs. All IOs display periods of attention stability, in which the allocation of output across topics remains proportional, even though the overall volume of the agenda expands or

contracts. These periods of relative agenda stability include, for example, the OIC in the 1980s and the EU between 1995 and 2005. Change, however, is frequent. The data contain both signs of incremental change, such as the steady rise in attention awarded by the OAS and UN to the topic of human rights, and of radical change, such as the dramatic increase in AU's attention to labor issues after 2005, and the near disappearance of security from the agenda of the OAS.

In general, it is evident that all IOs have agendas that are subject to a considerable amount of fluctuation, both in terms of overall scope as well as the allocation of attention to topics. The data confirm our expectation of diversity in the allocation of attention across issues and across time. Further, the temporal analysis indicates that issues rise and fall on the agenda, sometimes incrementally and sometimes through more abrupt changes. These are patterns that point to the possible presence of the hypothesized policy punctuations. To ascertain whether that is the case, we carry out further tests.

Policy punctuations in IO agendas

The conventional method to identify the presence of agenda punctuations is stochastic process analysis of population-level data. Rather that engaging in point prediction of individual punctuations, this approach identifies punctuations based on the characteristics of frequency plots of annual changes in agenda attention (Jones 2005, Jones et al. 2009, Alexandrova, Carammia, and Timmermans 2012). To generate year-to-year change distributions, we calculated the percentage-percentage shift in agenda attention allocated to each topic for each year between 1980 and 2015. To avoid artificially induced dramatic changes, we include only the five most frequent topic codes for each IO, grouping outstanding items under an "Other" category. Our results are robust with respect to several different specifications and calculation methods, including percent-count methods, and also to including all 16 categories in the calculation.[6]

We evaluate the presence of policy punctuations via frequency distribution plots and distributional shape statistics. Figure 2 presents histograms of year-on-year changes, with the magnitude of change on the x-axis and the count of observations at any given point on the y-axis. For purposes of comparison, we superimpose a normal curve with a mean and standard deviation identical to the given distribution. In a policy process without friction, we would expect a distribution of period-to-period changes to overlap with the normal curve, as policy

[6] Details on these calculations will be made available in an online appendix.

responds flexibly to changes in the state of the world. In contrast, for a policy process characterized by institutional friction and punctuation, we would expect a distribution that is leptokurtic; that is, a distribution with a tall peak and thicker tails.

[Figure 2 about here]

Inspection of the change distributions emerging from our five datasets suggests general leptokurtic tendencies. For all IOs, we observe a high number of observations around zero, which corresponds to periods in which the attention awarded to a topic remained stable or changed only incrementally. These observations reflect an IO policy agenda in equilibrium. However, the distributions also contain a higher than expected (under the normal distribution) frequency of observations at either extreme, including some observations that are very far off on the right tail.[7] These observations signify dramatic changes in the allocation of attention to a particular issue: punctuations of the equilibrium. For example, a score of +200 percent indicates a tripling of attention, whereas a score of -100 percent indicates that a topic has been dropped from the agenda completely. While changes of this magnitude are rarely seen in punctuation studies focused on budgetary allocations (Jones et al. 2009), it frequently happens in studies of policy agendas, which tend to be more volatile (Alexandrova, Carammia, and Timmermans 2012).

The observed patterns of slender peaks and extended, thicker tails suggest that the distributions are leptokurtic. This finding is further borne out by distribution shape statistics, presented in Table 3. We include statistics for both kurtosis and L-kurtosis, as both are commonly used in the literature, but we attach more weight to the L-kurtosis scores, as these are robust to smaller sample sizes (Royston 1992).

Table 3: *Shape statistics for frequency distributions of year-on-year changes in policy attention, 5 IOs, 1980-2015.*

IO	N	Kurtosis	L-kurtosis	Skew	Mean	SD	S-W test	K-S test
AU	210	13.5	0.298	1.20	0.07	0.63	0.00	0.00
EU	204	14.1	0.228	2.64	0.14	0.67	0.00	0.00
OAS	210	8.47	0.301	3.73	0.08	0.52	0.00	0.00
OIC	216	29.7	0.345	6.53	0.05	0.47	0.00	0.00
UN	216	99.2	0.355	8.43	0.04	0.41	0.00	0.00

[7] We group changes larger than +500% in the 500% category.

A normal distribution has a kurtosis of 3 and a L-kurtosis of 0.123. Higher values mean that a distribution is leptokurtic (high peak and thick tails); lower values that it is platykurtic (low peak and thin tails). All of the five IOs exhibit kurtosis and L-kurtosis scores well above what would be expected had the data been generated from a normal distribution. The smallest L-kurtosis value, 0.228 for the EU, is already a significant deviation from 0.13, and the largest value, 0.355 for the UN, suggests marked leptokurtic properties. Non-normality is further confirmed by Shapiro-Wilk and Kolmogorov-Smirnov tests for the five IOs, all of which comfortably reject the null hypothesis of normal distributions.

To place our results in the context of previous scholarship, we compare the L-kurtosis statistics with Baumgartner et al (2009), who report that the change distributions for parliamentary bills, laws, and statutes in Denmark, Belgium, and the United States have L-kurtosis scores of 0.26, 0.29, and 0.25, respectively. These are domestic policy outputs that emerge at a stage in the policy process that is comparable to the adoption of resolutions and directives by IOs. We note that the magnitude of our kurtosis scores is somewhat higher, on average, but overall in line with the previous results for comparable output distributions at the domestic level.

In sum, the evidence presented above is congruent with what we would expect if the logic of policy punctuations is correct. We observe annual change distributions with tall peaks and thick tails, as expected for agendas that change little for long periods of time but occasionally are subject to dramatic change. Hence, the data are strongly indicative of the presence of punctuated equilibria in these IOs (H1).

Comparative analysis

The data suggest that there is variation between our five distributions with respect to the degree of punctuation. The distribution of the EU exhibited lower leptokurtosis than any of the other IOs, whereas the UN had the highest score. What could explain this variation? Previous research has demonstrated a correlation between leptokurtic distributions in outputs and institutional friction (Baumgartner et al 2009; Jones et al 2009) and we proceed to test if the same association can be found in our data. While institutional friction conceptually includes both cognitive limitations and institutional barriers (Baumgartner and Jones 1993, True, Jones, and Baumgartner 2007), actual tests have focused on the latter (Jones et al 2009). We follow that practice, undertaking a preliminary assessment of the co-variation between institutional friction and observed distributions of year-on-year changes.

As discussed above, we identify three sources of institutional friction in IOs: decision rules, membership size, and preference heterogeneity. We do not claim to have identified a final and exhaustive list of factors that drive institutional friction in IOs, but we think that these factors provide a reasonable starting point for a preliminary analysis. *Decision rules* is a measure of the degree to which member state preferences must align before a decision can be adopted, as manifested in IO voting rules. The lowest barriers are raised in IOs that employ simple majority voting, whereas the most restrictive rules require consensus, that is, that all member states agree. *Membership size* is the count of IO member states. All else equal, a higher number of members is assumed to make decisions more costly to reach. *Membership preference heterogeneity* is an ordinal composite measure that seeks to tap into underlying interest heterogeneity stemming from differences among the core characteristics of IO members, such as developing versus developed economies, large versus small states, and autocracies versus democracies.

Following a procedure used by Jones et al (2009), we measure and rank each IO on these three variables, to produce an additive institutional friction index (Table 4). The ordinal rank of each IO for each variable is presented in parentheses. For decision-making, we took into consideration the proportion of votes required for adopting a decision in relation to the membership as a whole, and the extent to which more flexible decision-making processes (e.g., shifting from a requirement of consensus to majority voting) could be invoked (Mansfield, Milner, and Pevehouse 2007, Tsebelis and Yataganas 2002). For the size of membership, we relied on data from the Correlates of War IGO dataset (Pevehouse, Warnke, and Nordstrom 2004) and updated by IO-specific research as necessary. Preference heterogeneity scores were calculated from normalized variance statistics on key political economy variables, including population, overall size of the economy (GDP in the year 2000), level of development (GDP per capita in the year 2000), level of democracy (Polity IV 2015), and level of ethno-linguistic fractionalization (Fearon 2003).[8] A higher value corresponds to a more diverse membership, that is, one in which there are greater differences between member states in terms of economic development, regime type, power, and culture. As such, these factors capture underlying structural differences for several of the top policy issues on IO agendas.

[8] See appendix 2 for data.

Table 4: *Indicators of institutional friction in IOs*

IO	Decision rules	Membership size	Membership heterogeneity	Total friction
AU (OAU)	Consensus (alt. 2/3 majority) (3)	54 (3)	9 (2)	8
EU	Qualified majority (2)	28 (1)	8 (1)	4
OAS	Simple majority (alt. 2/3 majority) (1)	35 (2)	12.5 (3)	6
OIC	Consensus (alt. 2/3 majority) (3)	57 (4)	13.5 (4)	11
UN	Formally 2/3 majority or simple majority, but in practice consensus on most decisions. (3)	193 (5)	19.5 (5)	13

The results suggest that there is a significant amount of variation in institutional friction across IOs. Of the five organizations in our sample, the EU has the lowest institutional friction, primarily a function of a smaller and comparatively homogeneous membership. The UN, the largest and the most heterogeneous organization, is associated with the highest institutional friction.

To evaluate the presence of a correlation between institutional friction and leptokurtosis, we plot the two variables in Figure 4. Our sample size is very limited, but the plot suggests a correlation between institutional friction, as approximated by our ordinal ranking, and L-kurtosis statistics. The best-fitting line has a positive slope.[9] The conclusion is that institutional arrangements that inject friction into decision-making processes are associated with a higher likelihood of punctuations. Hence, based on these limited data, the prediction in hypothesis 2 is borne out.

[9] The correlation coefficient, r, is 0.93. Regressing leptokurtosis scores on institutional friction yields a linear model, $y = 0.20 + 0.013x$, where y is leptokurtosis and x institutional friction. The coefficient for x is statistically significant at the 95% level.

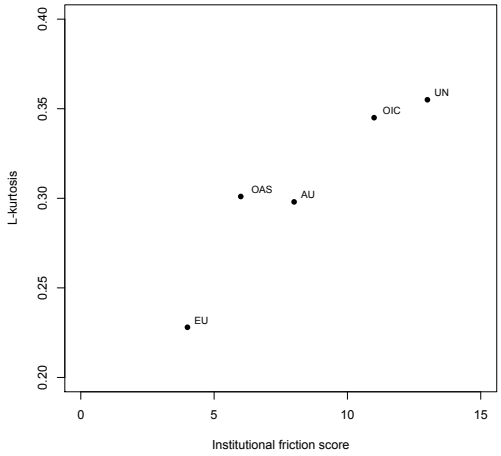


Figure 4: *The relationship between institutional friction and L-kurtosis in five IOs.*

It is possible that our additive measure obscures underlying variation. To evaluate the impact of the different factors included in the additive friction index, we plot the values of the three variables *decision rules*, *membership size*, and *membership preference heterogeneity* against the leptokurtosis values in Figure 5. This more fine-grained analysis reveals that all three factors are positively correlated with leptokurtosis values. The correlation is least distinct with respect to decision rules, where OAS is an outlier and three organizations receive the same ordinal score. For membership size, the correlation is relatively clear: IOs with more members display a greater tendency to policy punctuations, as measured by leptokurtosis statistics. Likewise, the plot for membership heterogeneity exhibits high degrees of correlation between the variables, suggesting that IOs with more diverse membership preferences are more likely to have agendas that evolve through punctuations.

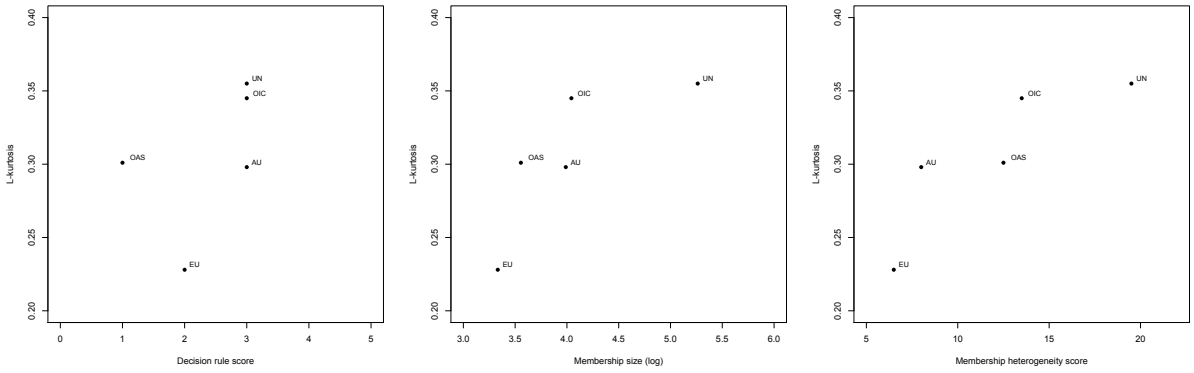


Figure 5: *The relationship between individual measures of institutional friction and L-kurtosis in five IOs.*

In sum, the data is congruent with our hypothesized association between institutional friction and policy punctuations. Both visual inspection of cross-plots and regression statistics confirm that IOs with more institutional friction tend to have a higher degree of punctuations, as indicated by measures of leptokurtosis in change distributions. We also note that the results are insensitive to a range of different measures of institutional friction.

Conclusion

IOs have developed into important fora for debating, developing, and adopting policy responses to global challenges. At the same time, IOs have been vested with greater policy-making authority. Against this backdrop, this paper has aimed to identify the dynamics of stability and change in IO policy-making and to explain variation across IOs in these dynamics. Theoretically, we draw from the study of policy agendas in American and comparative public policy to assess the dynamics of IO policy-making. Empirically, this paper examined five general-purpose IOs between 1980 and 2015 and mapped the overall pattern in their policy output.

Two principal findings emerge from our analysis. First, IO policy agendas exhibit patterns consistent with punctuated equilibria. Of the five IOs examined here, none displayed a normal output distribution, which is the expectation if agendas adapt flexibly to inputs. Rather, they were all characterized by an abundance of smaller changes, suggesting stability, and a considerable amount of larger changes, suggesting dramatic departures from the equilibrium. Such leptokurtic distributions are the conventional sign of policy punctuations.

Second, while the IO policy agendas in our sample are invariably punctuated, some agendas exhibit more punctuations than others. Institutional friction, generated by the combined impact of decision rules, membership size, and preference heterogeneity, contribute to the degree of punctuation in IO policy making. In our sample, the UN and OIC, both organizations with relatively demanding decision-making rules, a very high number of member states, and considerable heterogeneity across member states, were the most punctuated In contrast, the EU and OAS, which have lower institutional friction, have agendas characterized by less punctuation.

Our findings have three primary implications for the study of policy agendas and IOs. First, the predictive power of PET extends to policy-making in IOs. While some existing literature has applied the idea of punctuated equilibria to change in international regimes (Young 2010, Colgan, Keohane, and Van de Graaf 2011), this paper presents the first comparative application of punctuated equilibrium theory to IO policy-making. With very few

exceptions (Alexandrova, Carammia, and Timmermans 2012), previous scholarship within the punctuated equilibrium tradition has focused on the domestic level of analysis, identifying punctuations in the agendas of national and local government. We demonstrate that policy punctuations are equally prominent in global policy-making. Overall, our findings suggest that the level of political organization at which policy production takes place is secondary to the central tendency toward stability in policy agendas, marked by episodic change.

Second, IOs are more amenable to change than conventionally expected in global governance research, but these dynamics follow a very particular pattern. Existing research highlights reasons why IOs are slow to adapt. Demanding institutional hurdles make decision-making cumbersome (Scharpf 1988, Tsebelis 2002). Organizational cultures have stabilizing effects on IOs by defining appropriate institutional practices (Barnett and Finnemore 2004). And institutional rules tend to be self-reinforcing and generate feedback effects that lock in the status quo (Fioretos 2011). In all, these factors lead to a general expectation toward stability in IO policy-making. Yet, rather than only observing stability in IO policy-making, we identify change, suggesting that IO policy-making is more responsive to changing societal demands and shifting global problems than previously thought.

Third, institutional friction is a mediating factor to policy change in global governance. The dominant explanations for change in IO policy-making would privilege shifts in the distribution of state power (Drezner 2007, Stone 2011) or changes in states preferences on IO policy (Moravcsik 1997). Another strand of literature would attribute changes in IO policy output to norm change through social mobilization and norm entrepreneurship (Finnemore and Sikkink 1998, Price 1998; Stone 2008). Our findings, however, suggest that institutional friction, generated by a combination of decision rules, membership size, and preference heterogeneity, matters systematically for international policy dynamics.

Finally, we conclude by highlighting implications for the study of the performance of IOs (Hafner-Burton, von Stein, and Gartzke 2008, Gutner and Thompson 2010, Tallberg, Sommerer, Squatrito and Lundgren 2016). Are IO policy processes flexible enough to respond to global challenges as they emerge and evolve? Are the responses adequate? Stability in policy agendas of IOs suggest that IO policy-making tends to be consistent, ensuring that the range of issues that fall within the purview of IOs do receive attention with some regularity. The agenda patterns uncovered here also show that IO agendas do change, sometimes dramatically, to open up for new policy issues. This demonstrates that IOs are evolving and revising their policy portfolios in response to changing social demands. At the same time, there is significant amount of variation across organizations in terms of change

and stability. Our comparative data on policy punctuations indicate that some systems are more efficient in translating social inputs to policy outputs than others. This signals that IO performance varies and that decision rules, membership size, and preference heterogeneity contribute to differences in performance.

Bibliography

Alexandrova, Petya, Marcello Carammia, and Arco Timmermans. 2012. "Policy Punctuations and Issue Diversity on the European Council Agenda." *Policy Studies Journal* 40(1): 69-88.

Axelrod, Robert, and Robert O. Keohane. 1985. "Achieving Cooperation under Anarchy: Strategies and Institutions." *World Politics* 38(1): 226-254.

Barnett, Michael N., and Martha Finnemore. 1999. "The Politics, Power, and Pathologies of International Organizations." *International Organization* 53(4): 699-732.

Barnett, Michael N., and Martha Finnemore. 2004. *Rules for the World : International Organizations in Global Politics*, *Rules for the World*. Ithaca, N.Y: Cornell University Press.

Baumgartner, Frank R., Christian Breunig, Christoffer Green-Pedersen, Bryan D. Jones, Peter B. Mortensen, Michiel Nuytemans, and Stefaan Walgrave. 2009. "Punctuated Equilibrium in Comparative Perspective." *American Journal of Political Science* 53(3): 603-620.

Baumgartner, Frank R., Christoffer Green-Pedersen, and Bryan D. Jones. 2006. "Comparative Studies of Policy Agendas." *Journal of European Public Policy* 13(7): 959-974.

Baumgartner, Frank R., and Bryan D. Jones. 1993. *Agendas and Instability in American Politics*. Chicago: University of Chicago Press.

Baumgartner, Frank R., Bryan D. Jones, and John Wilkerson. 2011. "Comparative Studies of Policy Dynamics." *Comparative Political Studies* 44(8): 947-972.

Blake, Daniel J, and AutumnLockwood Payton. 2015. "Balancing Design Objectives: Analyzing New Data on Voting Rules in Intergovernmental Organizations." *The Review of International Organizations* 10(3): 377-402.

Breeman, Gerard, David Lowery, Caelesta Poppelaars, Sandra L. Resodihardjo, Arco Timmermans, and Jouke De Vries. 2009. "Political Attention in a Coalition System: Analysing Queen's Speeches in the Netherlands 1945–2007." *Acta Politica* 44(1): 1-27.

Breunig, Christian. 2006. "The More Things Change, the More Things Stay the Same: A Comparative Analysis of Budget Punctuations." *Journal of European Public Policy* 13(7): 1069-1085.

Coleman, William D. 2012. "Governance and Global Public Policy." In *The Oxford Handbook of Governance*, edited by David Levi-Faur. Oxford: Oxford University Press.

Colgan, Jeff D., Robert O. Keohane, and Thijs Van de Graaf. 2011. "Punctuated Equilibrium in the Energy Regime Complex." *The Review of International Organizations* 7(2): 117-143.

Copelovitch, Mark S. 2010. "Master or Servant? Common Agency and the Political Economy of IMF Lending." *International Studies Quarterly* 54(1): 49-77.

Drezner, Daniel. 2007. *All Politics is Global. Explaining International Regulatory Regimes*. Princeton, NJ: Princeton University Press.

Fearon, James. 2003. "Ethnic and Cultural Diversity by Country." *Journal of Economic Growth* 8(2): 195-222.

Finnemore, Martha, and Kathryn Sikkink. 1998. "International Norm Dynamics and Political Change." *International Organization* 52(4): 887-917.

Fioretos, Orfeo. 2011. "Historical Institutionalism in International Relations." *International Organization* 65(02): 367-399.

Grimmer, Justin, and Brandon M. Stewart. 2013. "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts." *Political Analysis* 21(3): 267-297.
Gutner, Tamar, and Alexander Thompson. 2010. "The Politics of IO Performance: A Framework." *Review of International Organizations* 5(3): 227-248.
Hafner-Burton, Emilie M., Jana von Stein, and Erik Gartzke. 2008. "International Organizations Count." *Journal of Conflict Resolution* 52(2): 175-188.
Hawkins, Darren G., David A. Lake, Daniel L. Nielson, and Michael J. Tierney. 2006. *Delegation and Agency in International Organizations*. Cambridge: Cambridge : Cambridge University Press.
Hooghe, Liesbet, and Gary Marks, 2015. "Delegation and Pooling in International Organizations." *Review of International Organizations* 10 (3):305–328.
König, Thomas. 2007. "Divergence or Convergence? From Ever-growing to Ever-slowing European Legislative Decision Making." *European Journal of Political Research* 46: 417-444.
Jensen, Carsten. 2009. "Policy Punctuations in Mature Welfare States." *Journal of Public Policy* 29(3): 287-303.
John, Peter. 2006. "The Policy Agendas Project: A Review." *Journal of European Public Policy* 13(7): 975-986.
Jones, Bryan D. 2005. "A Model of Choice for Public Policy." *Journal of Public Administration Research and Theory* 15(3): 325-351.
Jones, Bryan D., and Frank R. Baumgartner. 2005. *The Politics of Attention: How Government Prioritizes Problems*. Chicago: Chicago University Press.
Jones, Bryan D., Frank R. Baumgartner, Christian Breunig, Christopher Wlezien, Stuart Soroka, Martial Foucault, Abel François, Christoffer Green-Pedersen, Chris Koski, Peter John, Peter B. Mortensen, Frédéric Varone, and Stefaan Walgrave. 2009. "A General Empirical Law of Public Budgets: A Comparative Analysis." *American Journal of Political Science* 53(4): 855-873.
Jones, Bryan D., Tracy Sulkin, and Heather A. Larsen. 2003. "Policy Punctuations in American Political Institutions." *American Political Science Review* 97(1): 151-169.
Jupille, Joseph, Walter Mattli, and Duncan Snidal. 2013. *Institutional Choice and Global Commerce*. Cambridge: Cambridge University Press.
Koremenos, Barbara, Charles Lipson, and Duncan Snidal. 2001. "The Rational Design of International Institutions." *International Organization* 55(4): 761-799.
Lake, David A. and Robert Powell. 1999. *Strategic Choice and International Cooperation*. Princeton, NJ: Princeton University Press.
Laver, Michael, and John Garry. 2000. "Estimating Policy Positions from Political Texts." *American Journal of Political Science* 44(3): 619-634.
Lenz, Tobias, Jeanine Bezuijen, Liesbet Hooghe, and Gary Marks. 2015. "Patterns of International Authority: Task-Specific Vs. General-Purpose Organizations." *Politische Vierteljahresschrift* 49(1-2): 131-153.
Mansfield, Edward D., Helen V. Milner, and Jon C. Pevehouse. 2007. "Vetoing Co-Operation: The Impact of Veto Players on Preferential Trading Arrangements." *British Journal of Political Science* 37(3): 403-432.
Moravcsik, Andrew 1997. 'Taking Preferences Seriously: A Liberal Theory of International Politics." *International Organization* 51 (4): 513-553.
Mortensen, Peter Bjerre, Christoffer Green-Pedersen, Gerard Breeman, Laura Chaqués-Bonafont, Will Jennings, Peter John, Anna M. Palau, and Arco Timmermans. 2011. "Comparing Government Agendas: Executive Speeches in the Netherlands, United Kingdom, and Denmark." *Comparative Political Studies* 44(8): 973-1000.

Pevehouse, Jon, Kevin Warnke, and Timothy Nordstrom. 2004. "The Correlates of War 2 International Governmental Organizations Data Version 2.0." *Conflict Management and Peace Science* 21(2): 101-119.
Polity IV. 2015. "Polity IV Project: Political Regime Characteristics and Transitions, 1800–2010." http://www.systemicpeace.org/inscrdata.html.
Poulsen, Lauge N. 2014. "Bounded Rationality and the Diffusion of Modern Investment Treaties." *International Studies Quarterly* 58(1): 1-14.
Price, Richard. 1998. "Reversing the Gun Sights: Transnational Civil Society Targets Land Mines." *International Organization* 52(3): 613-644.
Princen, Sebastiaan. 2013. "Punctuated Equilibrium Theory and the European Union." *Journal of European Public Policy* 20(6): 854-870.
Repetto, Robert, ed. 2006. *Punctuated Equilibrium and the Dynamics of U.S. Environmental Policy*. New Haven: Yale University Press.
Rixen, Thomas, Lora Viola, and Michael Zürn, eds. 2016. *Historical Institutionalism and International Relations: Explaining Institutional Development in World Politics*. Oxford: Oxford University Press.
Royston, Patrick. 1992. "Which Measures of Skewness and Kurtosis Are Best?" *Statistics in Medicine* 11(3): 333-343.
Scharpf, Fritz W. 1997. *Games Real Actors Play : Actor-Centered Institutionalism in Policy Research*, *Games Real Actors Play*. Boulder, CO: Westview Press.
Shanks, Cheryl, Harold K. Jacobson, and Jeffrey H. Kaplan. 1996. "Inertia and Change in the Population of International Organizations, 1981-1992." *International Organization* 50(4): 593-627.
Sommerer, Thomas, and Jonas Tallberg. 2016. "Decision-Making in International Organizations: Actors, Preferences, and Institutions." Paper presented at the Annual Convention of the ISA, Atlanta, March 16-19, 2016.
Stone, Diane. 2008. "Global Public Policy, Transnational Policy Communities, and Their Networks." *Policy Studies Journal* 36(1): 19-38.
Stone, Randall W. 2011. *Controlling Institutions: International Organizations and the Global Economy*. Cambridge: Cambridge University Press.
Tallberg, Jonas, Thomas Sommerer, Theresa Squatrito, and Magnus Lundgren. 2016. "The Performance of International Organizations: A Policy Output Approach." *Journal of European Public Policy*. 23(7).
True, James L., Bryan D. Jones, and Frank R. Baumgartner. 2007. "Punctuated-Equilibrium Theory: Explaining Stability and Change in Public Policymaking." In *Theories of the Policy Process*, edited by Paul A. Sabatier, 155-187. Boulder, CO: Westview Press.
Tsebelis, George. 2002. *Veto Players: How Political Institutions Work*. Princeton, NJ: Princeton University Press.
Tsebelis, George, and Xenophon Yataganas. 2002. "Veto Players and Decision‐Making in the EU after Nice." *Journal of Common Market Studies* 40(2): 283-307.
UIA. 2015. *Yearbook of International Organizations, 2015-2016*. Leiden: Brill Academic Publishers.
Young, Oran R. 2010. *Institutional Dynamics : Emergent Patterns in International Environmental Governance*, *Earth System Governance*. Cambridge, Mass: MIT Press.
Zürn, Michael, Martin Binder, Alexandros Tokhi, Xaver Keller, and Autumn Lockwood Payton. 2015. The International Authority Data Project. Paper presented at the International Authority Workshop, December 10-11, Berlin.

Appendix 1: Topic codes

Main code	Topic	Sub-codes
100	IO governance	101. Budgets 102. Appointments 103. Staffing (Pensions, salaries, and benefits) 104. Audits 105. Meeting governance 106. Operational 107. IO premises and offices 108. IO-IO cooperation 109. TNA access and cooperation 110. Organizational development (membership, institutional architecture, rules of procedure, etc.) 111. Appreciation and recognition 112. Implementation encouragement 199. General or other
200	Economic development	201. Poverty reduction 202. Foreign aid 203. Good governance promotion 204. Housing and Settlement 205. Hunger and malnutrition 206. Industrial development 207. Population and development 208. Disaster relief and humanitarian action 209. Rural development 210. Urban development and planning 211. Water, sanitation and hygiene 299. General or other
300	Health and Social Affairs	301. Infants and children 302. Public health 303. Disease prevention, treatment, immunization 304. Drug abuse 305. Drug industry and clinical labs 306. Nutrition 307. Migration 308. Rural and Urban housing 309. Welfare 399. General or other
400	Human rights	401. Children's rights 402. Ethnic minorities and racial issues 403. Freedom of speech, voting rights, right to privacy, 404. Access to information 405. Gender equality and gender-based violence 406. Women's rights 407. Indigenous peoples 408. Refugees 409. Religious, age, handicap- based discrimination and violence 410. War crimes, crimes against humanity 499. General or other
500	Culture and education	501. Elementary and secondary education 502. Higher education 503. Vocational education 504. Research and knowledge management 505. Cultural heritage

		599. General or other
600	Labor and employment	601. Employee relations and labor unions 602. Employment benefits 603. Labor markets 604. Labor standards and labor law 605. Migrant workers 606. Worker safety and protection 607. Youth employment and child labor 699. General or other
700	Law and crime	701. Bribery and Corruption 702. Crime against children 703. Crime prevention 704. Drug production, trafficking 705. Organized crime 706. Police, weapon control, prisons 707. Rule of law 708. Terrorism 799. General or other
800	Governance	801. Governmental efficiency and bureaucratic oversight 802. Non-governmental actors 803. Public governance and management 804. Regulatory reform 805. Risk governance 806. Statistics 807. Tax administration 899. General or other
900	Environment and natural resource management	901. Air pollution 902. Chemical safety 903. Climate change 904. Consumption 905. Disaster risk reduction 906. Environmental risk management 907. Hazardous waste 908. Land conservation 909. Natural resource and forest management 910. Noise pollution 911. Species, plants protection, biodiversity 912. Sustainable development 913. Waste and recycling 914. Water safety, supply, pollution, conservation 999. General or other
1000	Agriculture, fisheries, commodities	1001. Agricultural development 1002. Agricultural subsidies 1003. Animal and crop diseases 1004. Animal production 1005. Commodity regulation 1006. Fisheries and Fishing 1007. Food inspection and safety 1099. General or other
1100	Energy and transport	1101. Airport, airlines, air traffic control and safety 1102. Alternative energy 1103. Fossil energy 1104. Maritime issues

		1105. Nuclear energy 1106. Railroad transportation and safety 1107. Road traffic, road safety, highway construction 1199. General or other
1200	Science and technology	1201. Biotechnology 1202. Communications 1203. Computer industry and security 1204. Digital government 1205. Governance of space and space exploration 1206. International scientific cooperation 1207. Internet 1208. Newspaper, publishing, broadcast industry 1209. Postal service 1210. Telephone and telecommunication 1211. Weather forecast and oceanography 1299. General or other
1300	Trade, economic integration, and industry	1301. Competition 1302. Consumer rights 1303. Corporate governance 1304. Export promotion 1305. Industry and entrepreneurship 1306. Innovation 1307. Intellectual property rights 1308. Non-tariff measures 1309. Small- and medium enterprises 1310. Microfinance 1311. Tariff and import restrictions 1312. Trade negotiations and agreements 1313. Tourism 1399. General or other
1400	Finance and monetary policy	1401. Banking system and financial institution regulation 1402. Consumer finance 1403. Exchange rates 1404. Financial markets 1405. Monetary issues 1406. Productivity and growth 1407. Public finance and fiscal policy 1408. Securities and insurance regulation 1409. Taxation 1499. General or other
1500	Security and defence	1501. Defense alliances and security assistance 1502. Disarmament, arms control and nuclear proliferation 1503. Military aid and weapons sales 1504. Military installations and personnel 1505. Military intelligence 1506. Civil defense 1507. Intra-state violence and conflict 1508. Military interventions and operations 1509. Peacebuilding and peacekeeping 1510. Mediation and arbitration 1511. Terrorism 1599. General or other
1600	International affairs	1601. Decolonization 1602. Diplomats, embassies, citizens abroad, passports 1603. International organizations and agreements

		1604. International law 1605. Organization of international meetings 1699. General or other

Appendix 2: Membership heterogeneity data

We calculated preference heterogeneity scores based on variance statistics on five dimensions: level of development (GDP per capita in the year 2000), level of democracy (Polity IV 2015; ranging from -10 to 10, with higher values signifying a higher level of democracy), size of the economy (GDP in the year 2000), population (in millions in the year 2000), and level of ethno-linguistic fractionalization (ELF) (Fearon 2003; ranging from 0 to 1, where higher values signify greater cultural heterogeneity). We scored each IO's value based on its ordinal ranking (1-5) and aggregated the ordinal rankings across the five dimensions to reach a heterogeneity score, which was itself ranked. (Since population and size of economy are strongly correlated, they are weighted at 50% in the aggregation.)

Membership heterogeneity

(Standard deviation of member state values for each dimension)

IO	Economic development (SD, GDP/cap)	Democracy (SD, Polity score)	Population (SD, millions)	Size of economy (SD, GDP)	Culture (SD, ELF)	Heterogeneity score
AU (OAU)	2,426 (1)	4.96 (3)	21.6 (1)	58.6 (1)	0.26 (3)	**9 (2)**
EU	4,558 (2)	0.28 (1)	22.6 (2)	646 (3)	0.17 (1)	**8 (1)**
OAS	9,414 (4)	2.50 (2)	65.4 (4)	2,290 (5)	0.24 (2)	**12.5 (3)**
OIC	7,966 (3)	5.47 (4)	45.0 (3)	171 (2)	0.27 (4)	**13.5 (4)**
UN	11,440 (5)	6.35 (5)	151 (5)	1,182 (4)	0.29 (5)	**19.5 (5)**

Tables and figures

Figure 1: *Agenda allocation in five IOs, 1980-2015*

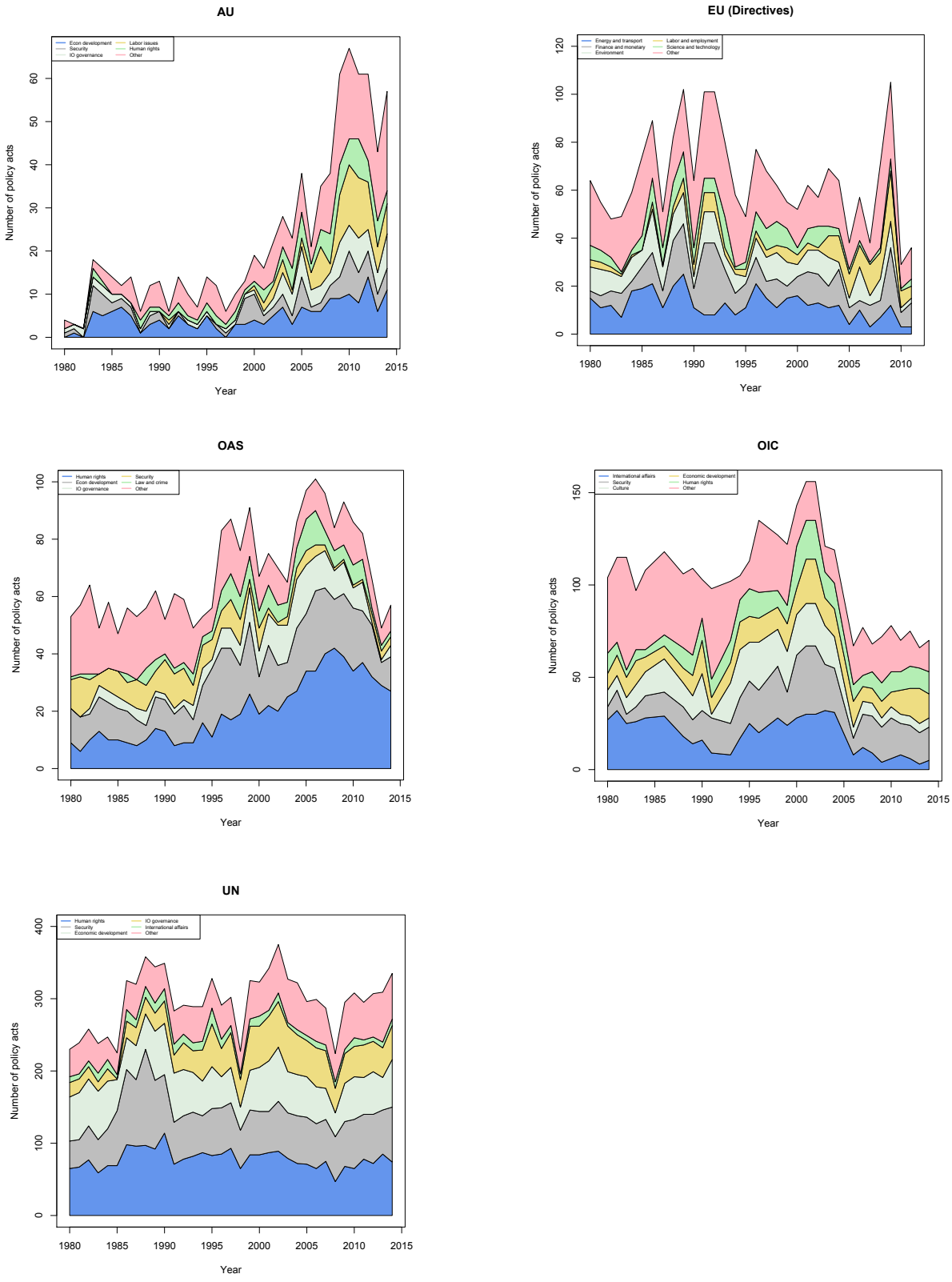


Figure 2: *Year-on-year percentual agenda changes in five IOs, 1980-2015*

