Jurisdictional Integration: A Framework for Measuring and Predicting the Depth of International Regulatory Cooperation in Competition Policy

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I Introduction

The politics of delegation to regulatory agencies and regulation after delegation are extensively studied topics within the field of regulation and regulatory administration. Past research has generated new insights on both the determinants of agency creation and the autonomy, control and accountability of regulatory authorities. The findings from these studies have given rise to a set of new questions.

One of these concerns the fact that regulatory agencies are increasingly interacting with counterpart agencies in other countries. Research mapping these international relationships and networks is still very scarce.

A further set of questions arises in considering what factors might “explain” the ways in which regulatory authority is being allocated between countries, and what impacts international regulatory cooperation has. What are the drivers of international regulatory cooperation? What factors are associated with shallow cooperation or deep cooperation? How, indeed, can the depth of international regulatory cooperation be measured? What are the effects of shallow or deep international regulatory cooperation on variables of interest, such as measures of international economic integration?

This paper starts to explore these descriptive and inferential questions through analysis of the field of international regulatory cooperation in the field of competition policy (anti-trust). Competition policy is a good candidate to pilot a new approach to mapping and measuring the depth of international regulatory cooperation. Increasingly mobile economic actors create the need for increased “regulatory reach.” Competition law has been one of the main zones of extra-territorial enforcement of domestic laws and jurisdicational conflict. The rapid expansion in the number of countries that have national competition laws has increased the potential for jurisdicational conflicts. There has also been rapid growth in the number of international agreements, they are of diverse types, and there is substantial variability in the depth of provisions across agreements. Finally, there is a considerable literature in this area, and widely recognized international normative instruments.

The starting point in this paper to the mapping, measurement and analysis of international regulatory cooperation is the disaggregation of the concept of state sovereignty. This results in the development of a new conceptual framework – jurisdicational integration - and new variables to describe and measure the depth of de jure international regulatory cooperation and to use as variables in statistical analysis of the causes and effects of international regulatory cooperation.

1 This paragraph is from the outline for the panel on the organization and coordination of regulation: complexities, dynamics and multi-level issues.

2 Braithwaite and Drahos 2000, p. 188
The paper is organised as follows. The next section briefly introduces the concept of jurisdictional integration, while the following section describes a new ordinal index to measure the depth of international cooperation in enforcing competition policy. In section IV, a new dataset of international agreements is described, and the 92 agreements are ranked against the ordinal index. Section V presents summary descriptive statistics that map *de jure* international regulatory cooperation in this domain. Descriptive propositions in the literature on the nature of international competition policy cooperation are tested against the data. The depth of enforcement jurisdictional integration is then used as a predictor variable to test hypotheses of the causes of shallow or deep *de jure* cooperation. Finally, the depth of enforcement cooperation is used as a predictor variable to test a hypothesis about the relationship between depth of agreement and legal form of agreement. The paper concludes with a summary of results, an assessment of the paper’s contribution to the literature, and a discussion of limitations and areas for further research.

II State Sovereignty, State Jurisdiction and Jurisdictional Integration

The term sovereignty is used in a wide variety of ways, creating ambiguity and confusion. State sovereignty may refer to the possession of international legal personality, or to the possession of particular legal competences or powers. It may refer to *de jure* state authority or to *de facto* state capacity. It may be used to refer to the full set of a state’s legal powers or capacities, to the minimum autonomy a state must possess to be a state, or to just one or other of those powers and capacities. It is often not clear which aspect or meaning is being applied in a particular case.

In an influential attempt at clarification, Krasner has identified four categories of sovereignty:

1. Domestic sovereignty: the formal organization of political authority within the state and the ability to exercise effective control within the state’s borders.
2. Interdependence sovereignty: the ability to control cross-border flows.
3. Westphalian sovereignty: political organization within a specific territory based on the exclusion of external actors from domestic authority structures.
4. International legal sovereignty: the possession of recognized legal personality on the international plane.

Krasner points out that these four meanings of sovereignty are not logically coupled, nor have they co-varied in practice. Indeed, he points out that the exercise of one type of sovereignty can undermine another. Compromises of Westphalian sovereignty in an increasingly interdependent world are often intended to strengthen interdependence sovereignty – as argued by the “new sovereignty” theorists.\(^3\) That is, by giving up some of their *de jure* authority in international economic agreements, states can increase their *de facto* ability to influence trans-national activities or spill-overs.

This paper attempts to build on Krasner’s concept of ‘compromises of Westphalian sovereignty by invitation’. It does so by developing a new framework – jurisdictional integration – to conceptualise, describe, and provide a basis to measure the increasingly diverse ways in which states are choosing to restrict their authority by entering international agreements.

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The new framework is based on substituting the term ‘state jurisdiction’ for the awkward and historically inaccurate term ‘Westphalian sovereignty’.

State jurisdiction is the authority of a state under international law to govern persons or property by its municipal law i.e. its domestic or national law. State jurisdiction is commonly conceived as comprising three distinct dimensions:

1. **Jurisdiction to prescribe** i.e. to make its law applicable to particular persons and circumstances, whether by legislation, by executive act or order, by administrative rule or regulation, or by determination of a court.
2. **Jurisdiction to adjudicate** i.e. to subject persons or things to the processes of its courts or administrative tribunals, whether in civil or criminal proceedings, whether or not the state is a party to the proceedings.
3. **Jurisdiction to enforce** i.e. to induce or compel compliance or to punish non-compliance with its laws or regulations, whether through the courts or by use of executive, administrative, police or other non-judicial action.

Drawing on these established categories of international law, jurisdictional integration is, then, defined as:

‘a process by which a state chooses, through entering formal agreements with other states (or with international organizations comprised of states), to restrict its recognized (de jure) authority to autonomously make and/or to enforce and/or to adjudicate decisions in a specific policy domain(s).’

More specifically, jurisdictional integration is conceived of as a spectrum running from complete policy autonomy through to, but stopping short of, full political integration. It covers all forms of cooperative (as opposed to unilateral) policy cooperation, and all types of institutional integration short of full political integration. It excludes all types of unilateral action that “import” or attempt to “export” jurisdiction across states.

Whether a state can, in practice, exercise effective control over specific economic activities is outside the scope of this enquiry. That is, the focus is solely on formal legal authority, not the state’s capacity to exercise that authority. As Howse has noted, these two questions are often not clearly separated: “Part of the project of demystifying the notion of “sovereignty lost” is to address these questions separately.”

The remainder of this article attempts to demonstrate that jurisdictional integration is not only more conceptually coherent than ‘sovereignty’ as a framework for the analysis of international regulatory cooperation, it is also more tractable.

**III An Instrument to Measure the Depth of International Regulatory Cooperation in Enforcing Competition Policy**

Various classifications have been produced of the competition provisions in international agreements. These taxonomies have, in the main, been produced to enable an initial

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4 Howse, 2008, p. 65.
“mapping” of the provisions in selected agreements and the compilation of simple check-lists of the presence/absence of specific features. Empirical work in this area, in terms of measuring levels of cooperation and using this as an input to statistical analysis of the causes and effects of cooperation, is at an early stage. None of the existing classifications contains – or appears to attempt – a coherent ordering of provisions by depth of cooperation.

This section presents an ordinal index of the depth of international cooperation in enforcing competition policy – enforcement jurisdictional integration, or EJI. Enforcement cooperation incorporates both judicial and non-judicial enforcement, although existing competition enforcement agreements focus very much on non-judicial cooperation i.e. cooperation between national competition authorities.

Compared to existing approaches, this framework enables direct comparison of the depth of international economic cooperation across different regions (including incorporation of the EC in such comparisons), and across different instrument types (e.g. chapters in an RTA, and stand-alone competition enforcement agreements between national competition authorities).

Recall that the baseline against which jurisdictional integration is assessed is that of state autonomy, reflecting the fundamental international system norm of non-interference in the affairs of other states. For instance, under international law a state’s law enforcement officials may only exercise their functions in another state with the consent of the other state. Departures from this baseline occur through formal agreements between states or state agencies which introduce expectations, of increasing strength, that states will cooperate in enforcing competition laws. These expectations intrude progressively on de jure state autonomy.

Drawing, inter alia, on an analysis of a series of OECD Council Recommendations Concerning Cooperation between Member Countries on Restrictive Business Practices, and on the provisions in ninety two international Competition Enforcement Agreements, the following ordinal index of non-judicial enforcement cooperation in competition policy has been derived:

Level 1 on the EJI index, informal cooperation, is the default in the absence of any formal agreement. A lot of cooperation occurs at this level between Competition Authorities, but it takes place outside any formal instrument - although it may be “in the shadow” of the OECD Recommendations on Restrictive Business Practices, or of the International Competition Network (ICN).

The second level on the EJI index, cooperation short of notification, represents formal agreements to cooperate unrelated to individual cases – for instance, through discussing general enforcement issues or enforcement research, exchanging experience, engaging in


technical cooperation, exchanging staff, or similar activities. Level 2 also includes the development of “model enforcement practices”, such as that developed by the ICN.7

Level 3 on the index is basic notification i.e. an agreement that competition authorities should notify each other when the enforcement actions of one may impact on the interests of the other state. Case-specific cooperation is considered to represent a clear threshold in international enforcement cooperation.8

Level 4 comprises agreements providing for detailed mutual enforcement cooperation. In addition to basic notification (level 3), these agreements contain one or more of the following provisions:

- Some specification of the circumstances surrounding when or how notification should take place.
- Assistance with gathering of voluntary evidence on behalf of a foreign Competition Authority.
- Seeking waivers for the release of confidential information.
- A reference to possible coordination of parallel investigations, with at least some fleshing out of what this might entail.
- Notification when one authority becomes aware that anticompetitive activities themselves are taking place that may affect the other party’s interests.9

Level 5, positive comity, refers to an agreement that a Competition Authority affected by anticompetitive conduct may request another Competition Authority to open or expand an investigation, and an obligation that the requested Authority should consider such a request. There is a bright line between negative or traditional comity, which is included in levels 3 or 4, and positive comity at level 5.10 Traditional comity refers to a country considering avoiding taking an action because it may harm another country’s interests, while positive comity entails a country being asked to take action it might not otherwise take.

At level 6 is a small number of more recent agreements that contain advanced jurisdictional interface rules. An agreement at this level will include one or more of the following:

7 ICN 2006.

8 For instance, see Melamed 1999, p. 424

9 See Mathis, 2005 for discussion of this more active form of notification.

• In addition to the basic positive comity clause, identification of the circumstances when an authority requesting another Competition Authority to initiate an investigation may defer or suspend its own investigation in the meantime.
• The use of compulsory powers to obtain evidence for a foreign Competition Authority.
• Sharing of confidential information without waiver for its release from those who provided it.
• An agreement to provide assistance whether or not the conduct being investigated is an offence under the laws of the requesting Authority.

In the recent literature these are viewed as clearly representing a deeper level of cooperation.

Level 7 on the EJI index includes agreements that establish third party enforcement. There is a clear threshold between the previous levels, entailing horizontal cooperation between national-level Competition Authorities, and agreements that establish a supra-national Competition Authority to enforce competition law e.g. the EC, the European Free Trade Area (EFTA), and the West African Economic and Monetary Union (WAEMU).

This seven-level index attempts to provide a clear ordering of more or less distinct and increasing depth of enforcement cooperation. This is in contrast to the binary (soft/hard cooperation) distinction often drawn generally in international law, and also specifically with respect to international competition cooperation. It also contrasts with existing taxonomies of competition cooperation, and provides a comprehensive measure of the depth of enforcement cooperation across the different types of international agreements in which cooperation is embodied.

The concept of jurisdictional integration also provides a comprehensive framework for classifying and ordering the depth of international cooperation with respect to the other dimensions of state jurisdiction viz. the prescriptive jurisdiction and the adjudication jurisdiction, which in the field of competition policy similarly range from low level cooperation up to third party rule making and a supra-national court, respectively.  

11 Holmes et. al. 2005, p. 60; and Taylor 2006.

12 See Petrie 2009, Chapter 10 for ordinal indices of the other dimensions of state jurisdiction with respect to competition policy. See also Chapter 13.3 for description of an approach to identifying “families” of agreements through a vector of the three dimensions of state jurisdiction that summarizes the key features of each agreement. For example, a vector approach could be used as follows with respect to international competition policy cooperation: (8, 7, 5) describes the level of integration of prescriptive jurisdiction, enforcement jurisdiction, and inter-state adjudication respectively for the EC on the three indices, illustrating that the EC is at the highest level of integration on each of these three integration vectors. The rating of the North American Free Trade Agreement (NAFTA) chapter of competition policy would be (3,4,1).
IV The Dataset, and Ranking Agreements by Depth of Regulatory Enforcement Cooperation

International agreements containing provisions on cooperation in enforcing competition policies are of two main types: a competition policy chapter in an RTA, and stand-alone Competition Enforcement Agreements (CEAs). CEAs are often referred to as bilateral agreements, but may involve three or more national competition authorities.

Drawing on existing datasets, and from a range of additional sources, a combined dataset of 92 international agreements containing competition enforcement cooperation provisions has been compiled for this analysis.\(^\text{13}\)

The dataset comprises 51 CEAs, and 41 competition policy chapters in RTAs. While some previous studies have included a large number of RTAs with competition-related provisions, no previous study has included such a large number of CEAs, nor combined the competition-related provisions in RTAs and CEAs into a single dataset for statistical analysis.

A possible objection to combining RTA chapters and CEAs in a single data set is the different status of RTAs and CEAs in international law. Slaughter notes that there is a fundamental difference between intergovernmental cooperation - formal state-to-state Treaties that can create binding obligations - and trans-governmental cooperation - agreements between government agencies rather than between states themselves.\(^\text{14}\) RTAs are clearly intergovernmental agreements. While it might be assumed, on the other hand, that a CEA is an agency-to-agency agreement, in fact a number of CEAs are explicitly agreements between governments, not between agencies, and are signed by representatives of governments.\(^\text{15}\)

Furthermore, aside from the small number of deep agreements providing for third party enforcement, in all cases the competition policy chapter of an RTA is specifically excluded from the dispute resolution provisions in that RTA, rendering it of a non-binding character.

\(^{13}\) Existing datasets on competition provisions in RTAs include OECD 2006, Cernat 2005, and Sokol 2007, while Holmes et al (undated) listed 22 CEAs. These sources were supplemented by targeted searches on the Tuck Trade Agreements database and the WTO web site; and for CEAs, by searches on the web sites of the OECD, UNCTAD, ICN, and key node countries, plus drawing on the APEC Competition Law and Policy Database and a Free Trade Agreement of the Americas Inventory of Competition Agreements. Agreements that were subsequently superseded or encompassed by later agreements were excluded. See Petrie, 2009, Chapter 12 for a detailed description of how the dataset was compiled.

\(^{14}\) Slaughter 2004.

\(^{15}\) As noted by Holmes et. al. undated, p. 51; and Zanettin 2007, p.77.
Therefore, where enforcement cooperation in a CEA and in an RTA is described in the same terms, such as in a notification or a positive comity clause, it is arguably valid to consider them to be an approximately equivalent indication of the depth of de jure cooperation.

These 92 agreements are considered likely to comprise a high proportion of all the international competition enforcement agreements in existence. It may not be unreasonable to suggest that the total number of RTAs and CEAs providing for competition enforcement cooperation was in the range of 125 – 150 as at 2009. This would mean the sample compiled here represents 61% - 74% of all agreements.\(^\text{16}\)

The text of each of these 92 agreements has been ranked on the index of enforcement jurisdictional integration (EJI) in Section III. Table 1 presents the rankings of each agreement, classified by agreement type, depth of cooperation, and whether the agreement was prior to or subsequent to 2000.

V Using Jurisdictional Integration as a Variable for Measurement, Description and Research

This section illustrates the potential contribution of this new approach to mapping and measuring international regulatory cooperation. It does so by presenting summary descriptive statistics on the depth of international regulatory cooperation in enforcing competition policies and trends over time, together with some results from exploratory statistical analysis in which EJI is used as the dependent variable to test selected hypotheses as to why states choose shallow or deep cooperation.

A. Descriptive Statistics

Figures 1 and 2 are relative frequency bar graphs of the two agreement types – RTAs and CEAs – showing the distribution of agreements across levels 2-7 on the EJI index. In each case, the mode of the distribution is level 4, the median is also level 4, and the range is the same (levels 2-7). The distribution of CEAs is more peaked at level 4, however, and the right tails of the distribution are radically different. There are no RTAs at level 6, a level that entails deep cooperation between officials in national anti-trust agencies of a kind that is difficult to achieve in multi-sector negotiations led by trade and foreign affairs officials.

There are, however, 8 RTAs at level 7 (third party enforcement). This reflects the fact that these RTAs are intended to achieve particularly deep and broad economic integration. Concern that private impediments to trade may frustrate this objective led these governments to sacrifice significant formal autonomy in competition policy enforcement. CEAs, however, are carefully negotiated within existing domestic legal mandates, and, with only one exception, do not entail third party enforcement. The one exception proves the rule: the European Competition Network, which is a competition-policy specific agreement between Competition Authorities and the EC Competition Directorate (and therefore classified here as a CEA rather than an RTA), is an extension of a prior level 7 RTA.

\(^{16}\) See Petrie 2009, Chapter 12.2-12.4 for further details on the comprehensiveness of the data set.
<table>
<thead>
<tr>
<th>Depth of EJI</th>
<th>Competition Enforcement Agreements</th>
<th>Competition Policy Chapters in RTAs</th>
</tr>
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<tbody>
<tr>
<td>Pre-2000:</td>
<td>China-Russia 1996; Hungary-Russia 1997; China-Kazakhstan 1999; Korea-Russia 1999</td>
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<td>Pre-2000:</td>
<td>Brazil-Russia 2001; CIS-Korea-Latvia-Romania 2003; Australia-Fiji 2002; Mexico-Russia 2003; Bolivia-Russia 2003; Russia-Sweden 2004; China-EC 2004; Romania-Turkey 2005; Albania-Greece 2006; Mongolia-Taiwan 2007; Portugal-Turkey 2008</td>
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<tr>
<td>2000 and later:</td>
<td>Brazil-Russia 2001; CIS-Korea-Latvia-Romania 2003; Australia-Fiji 2002; Mexico-Russia 2003; Bolivia-Russia 2003; Russia-Sweden 2004; China-EC 2004; Romania-Turkey 2005; Albania-Greece 2006; Mongolia-Taiwan 2007; Portugal-Turkey 2008</td>
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<tr>
<td>Pre-2000:</td>
<td>Chile-Mexico 1999</td>
<td></td>
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<td>3 Pre-2000:</td>
<td>Lithuania-Ukraine 1996</td>
<td></td>
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<tr>
<td>Pre-2000:</td>
<td>EC-Korea 2004; France-Taiwan 2004; Korea-Turkey 2005</td>
<td></td>
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<tr>
<td>2000 and later:</td>
<td>EC-Korea 2004; France-Taiwan 2004; Korea-Turkey 2005</td>
<td></td>
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<tr>
<td>Pre-2000:</td>
<td>US-Canada-Mexico (NAFTA) 1994; Canada-Israel 1997; Canada-Chile 1997</td>
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<td>Pre-2000:</td>
<td>Canada-Chile 2001; Australia-Korea 2002; Australia-NZ-Taiwan 2002; ECA Mergers Guide 2002; Canada-Korea 2006; Australia-NZ 2006; Canada-UK 2003; Australia-Canada-NZ 2000; Australia-NZ-UK 2003; Armenia-Moldova 2007; Australia-New Zealand 2007</td>
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<tr>
<td>2000 and later:</td>
<td>Canada-Chile 2001; Australia-Korea 2002; Australia-NZ-Taiwan 2002; ECA Mergers Guide 2002; Canada-Korea 2006; Australia-NZ 2006; Canada-UK 2003; Australia-Canada-NZ 2000; Australia-NZ-UK 2003; Armenia-Moldova 2007; Australia-New Zealand 2007</td>
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<tr>
<td>Pre-2000:</td>
<td>US-Canada-Mexico (NAFTA) 1994; Canada-Israel 1997; Canada-Chile 1997</td>
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<tr>
<td>Pre-2000:</td>
<td>Canada-Costa Rica 2002; Algeria-EC 2002; Chile-EC 2003; Chile-Korea 2004; EC-Mexico 2000; Israel-Mexico 2000; Brunei-Chile-NZ-Singapore 2006; Japan-Singapore 2002</td>
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<tr>
<td>Pre-2000:</td>
<td>EC-Turkey 1996</td>
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<tr>
<td>Pre-2000:</td>
<td>EC-US 1998; Australia-USA 1999</td>
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<tr>
<td>2000 and later:</td>
<td>EC-US 1998; Australia-USA 1999</td>
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<tr>
<td>Pre-2000:</td>
<td>Denmark-Iceland-Norway 2001; Canada-US 2004</td>
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<tr>
<td>Pre-2000:</td>
<td>EC (European Competition Network 2003)</td>
<td></td>
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<tr>
<td>2000 and later:</td>
<td>EC (European Competition Network 2003)</td>
<td></td>
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<tr>
<td>TOTAL</td>
<td>51</td>
<td>41</td>
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</table>
The data in Table 1 show that the depth of enforcement cooperation in the aggregate has increased over time. There were 63 agreements in the period 2000-2008, but only 29 in the entire period prior to 2000. There is a clear tendency for earlier agreements to be supplemented or replaced by deeper agreements between the same signatories. In every case except two, where an initial CEA or RTA chapter has been supplemented by a subsequent CEA, the later agreement is as deep, or deeper, than the original.

At the same time, this deepening has been accompanied by broadening: an increasing number of shallower FTAs have been signed by countries newly active in international competition policy cooperation, so that the median and modal depth of agreements fell in 2000-2008 compared to the previous period, from 5 to 4 and 4 to 2 respectively. RTAs accounted for nearly all this change, reflecting in particular the large number of shallow FTAs in the most recent period.

Finally, Table 1 also reveals the varying practices of countries in terms of the depth of agreements they sign. The US has the highest proportion of deep agreements – 12 out of the 17 agreements it has signed are level 5 or higher on the EJI index. Corresponding proportions for other signatories are the EC (8 out of 17); EFTA (5 out of 8); Japan (4 out of 8); Canada (5 out of 13); Australia (2 out of 14); Korea (1 out of 8); Chile (1 out of 8); and Russia (0 out of 8). The reasons for the varying practice of countries in signing shallow or deep agreements are explored in sub-section C below.

B. Testing descriptive propositions about the nature of international competition policy enforcement cooperation

The combined dataset is now used to test selected descriptive propositions in the literature about the nature of international competition policy cooperation.

First, a small number of international legal scholars have recently applied the concept of trans-governmentalism to the qualitative analysis of international competition policy cooperation. These studies all conclude, on the basis of an assessment of CEAs only, that the level of trans-governmentalism in international competition policy cooperation is high. However, when the concept of trans-governmentalism is applied to the 92 agreements in this study, this result is reversed. International competition policy cooperation is predominantly an “intergovernmental” phenomenon: 66% (61/92) of agreements are “intergovernmental.” This is due to the inclusion of RTAs in the dataset and the classification of 20 CEAs as “intergovernmental.” For CEAs alone, 31 out of 51, or 61%, are intergovernmental.

Secondly, Zanettin has stated that the “vast majority of bilateral agreements signed so far have the US as one of the parties.” Over the whole sample compiled here, there are only 11/51, or 22% of CEAs where the US is one of the signatories. If the data is divided into three sub-periods (1957-1998, 1999-2002, and 2003-2008), the corresponding proportions are 56%, 26%, and 4% (5/9, 5/19, and 1/23). The statement is therefore incorrect, although the proportion of agreements prior to 1999 involving the US did exceed one half. In the most recent period, only a very small proportion of CEAs involve the US.
Thirdly, Jenny has stated that it is “virtually impossible” for developing countries to sign a CEA with developed countries, there are “only a handful.” 15/51, or 29% of CEAs are between a developed country and a less developed country. There were none in the period prior to 1999 (0/9), but 37% (7/19) of the CEAs signed 1999-2002, and 39% (9/23) of those signed 2003-2008 were between a developed country and a less developed country. This suggests that, while the statement was very much correct prior to 2000, it is not correct in the post-2000 period.

An interesting question, however, is whether there is a relationship between the depth of enforcement cooperation and the level of country development of the signatories, rather than just the existence or absence of an agreement. This will be investigated in the next subsection.

C. Inferential Statistics: exploring the drivers of international regulatory cooperation

The data on enforcement jurisdictional integration are now used to conduct exploratory statistical tests of hypotheses about the factors influencing the depth of international economic policy cooperation. The objective is to demonstrate the practicality and value of the framework, not to rigorously investigate the causes of deep cooperation.

a) Enforcement Cooperation and OECD Membership

The hypothesis tested is that a high proportion of North-South RTAs that contain enforcement cooperation provisions, and of North-South CEAs, are likely to provide only for shallow cooperation, while North-North agreements will on average be deeper.

Cernat hypothesized that, in negotiating RTAs with developed countries, developing countries would seek to include provisions on competition enforcement cooperation (“for example consultation, notification, and so on”) in an attempt to restrict anti-competitive practices by developed country firms in their markets.17 This same logic would presumably apply to CEAs between developed countries and developing countries. Cernat found that approximately 80% of North-South RTAs contain consultation provisions, and 38% contain notification provisions, while only 31% of North-North agreements contained notification provisions.

However, many competition enforcement cooperation agreements – especially between developed economies - are in the form of stand-alone agreements (CEAs) rather than RTAs. Testing the hypothesis only on RTAs may therefore produce misleading results. Furthermore, rather than simple presence of notification provisions, it is interesting to consider the depth of the provisions.

In that respect, it seems unlikely that developed countries would sign up to deep enforcement cooperation with less developed countries when many of the latter countries lack credible enforcement capacity, and some lack a Competition Authority or even a competition law altogether. Developed countries also lack the incentive to enter such agreements when the provisions are more likely to be invoked by less developed countries with respect to the

activities of developed country firms in their markets, than vice versa (as argued by Jenny).¹⁸

Therefore it is hypothesized that a high proportion of North-South RTAs and North-South CEAs that contain enforcement cooperation provisions are likely to provide only for shallow cooperation, while North-North agreements will on average be deeper.

This hypothesis will be tested using two different variables: first, the effect of OECD membership on the depth of enforcement cooperation; and secondly, the effect of advanced economy status (as defined by the IMF). For an agreement to qualify as a North-North agreement, all the signatories will have to be OECD members (in the first specification) or advanced economies (in the second specification). Both OECD membership and advanced economy status are plausibly correlated with country quality of governance, and specifically with the existence and capacity of a country’s competition enforcement authority. While there is a high degree of overlap in the dataset between developed economies and OECD members, there are some important differences. For instance, Mexico and Turkey are OECD members, but are not advanced economies, while the reverse is true for Singapore, Taiwan and Israel.

Table 2 displays the data with respect to OECD membership. High enforcement cooperation is defined initially as a score of 4 and above on the EJI index. The estimated conditional probability that enforcement cooperation is high, where both or all signatories to an agreement are OECD members, is 0.89. On the other hand, the estimated conditional probability of high enforcement cooperation when at least one signatory is a non-OECD member, is only 0.39. The difference of proportions is .5 (.89-.39), with a standard error of .08. A 95% confidence interval for the true difference is (.34, .66). In other words, we can be 95% confident that the true difference of proportions is between .34 and .66.

<table>
<thead>
<tr>
<th>Enforcement Cooperation and OECD Membership</th>
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<tbody>
<tr>
<td>At least one non-OECD signatory</td>
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<td>OECD-only agreements</td>
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<td>Total No. of agreements</td>
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The odds ratio is an alternative way to demonstrate the strength of the relationship between the depth of enforcement cooperation and OECD membership. From Table 2, the odds ratio can be calculated as follows: \((35 \times 31) \div (22 \times 4) = 12.3\).

This means that the estimated odds of high enforcement cooperation in agreements between countries that are both or all members of the OECD, is 12.3 times higher than when at least one of the signatories is not an OECD member.

These results point to a very strong relationship between OECD membership and the depth of competition enforcement cooperation. When advanced economy status is the explanatory variable rather than OECD membership, there is a much weaker relationship. Comparing the two odds ratios, the marginal odds of enforcement cooperation being high in agreements between OECD countries (at 12.3) is over three times greater than in agreements between advanced economies (3.7).

b) Enforcement Cooperation and Similarity of Competition Laws

It seems plausible that enforcement officials will find it easier to cooperate where the legal regimes under which they operate are more similar e.g. where offences are similarly defined, and where enforcement practices, particularly involving information sharing, are compatible. 19

This hypothesis can be tested using a dataset on the similarity of the competition laws of 11 APEC economies compiled by Bollard. 20 Bollard’s index of similarity is an un-weighted aggregation of scores for twenty two elements under 7 broad areas of competition law. The result is a score of between 0 (totally different competition laws) and 100 (an identical pair of laws), for 55 country pairs.

To compare these country pair scores with the depth of enforcement cooperation between the same pairs of countries, the similarity index scores are divided into two categories, low similarity and high similarity.

Of the 55 country pairs for which a legal similarity index is available, there are 19 country pairs for which an enforcement cooperation score is also available in the dataset. Where there is more than one agreement between the same pair, the score used is the deepest agreement involving each country pair.

High cooperation is defined as level 5 or above on the EJI Index. Table 3 displays the results. The estimated conditional probability that enforcement cooperation is high, where competition laws are similar, is 0.6, while when competition laws are not similar it is 0.22. Having similar competition laws does not appear to be a very good predictor of deep enforcement cooperation, while the absence of similar laws is not a particularly strong predictor of low cooperation. The marginal odds ratio is 5.3.

Given the search techniques used to compile the dataset, however, we can have some confidence that few or even possibly none of the remaining 36 country pairs has any formal


competition policy enforcement cooperation agreement at all. There is, therefore, a need to incorporate these country pairs in the analysis. Of the 36 country pairs with no formal agreement in our dataset, 10 pairs rank high on the legal similarity index, while 26 pairs rank low on that index.

Table 3: Competition Enforcement Cooperation and Similarity of Competition Laws (n = 19)

<table>
<thead>
<tr>
<th>Enforcement Cooperation</th>
<th>Low</th>
<th>High</th>
<th>Total</th>
<th>Probability of high cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low similarity of laws</td>
<td>7</td>
<td>2</td>
<td>9</td>
<td>.22</td>
</tr>
<tr>
<td>High similarity of laws</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>.60</td>
</tr>
<tr>
<td>Total No. of agreements</td>
<td>11</td>
<td>8</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

If we make the strong assumption that none of these 36 country pairs has a CEA or RTA containing competition enforcement cooperation provisions, and defining high enforcement cooperation and high legal similarity in the same way as in Table 3 above, the resulting contingency table is shown in Table 4.

Table 4: Competition Enforcement Cooperation and Similarity of Competition Laws (n = 55)

<table>
<thead>
<tr>
<th>Enforcement Cooperation</th>
<th>No/Low</th>
<th>High</th>
<th>Total</th>
<th>Probability of high cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low similarity of laws</td>
<td>33</td>
<td>2</td>
<td>35</td>
<td>.06</td>
</tr>
<tr>
<td>High similarity of laws</td>
<td>14</td>
<td>6</td>
<td>20</td>
<td>.30</td>
</tr>
<tr>
<td>Total No. of agreements</td>
<td>47</td>
<td>8</td>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

Now, the estimated conditional probability that enforcement cooperation is high, where competition laws are dissimilar, is only 0.06. This means that we can be very confident that enforcement cooperation will be low when legal similarity is low. The marginal odds ratio is \((33 \times 6) / (2 \times 14) = 7.1\), and the difference of proportions is .24.

On the other hand, when legal similarity is high, the estimated conditional probability that enforcement cooperation is high is only 0.3. Not surprisingly, these results suggest that similarity of substantive competition laws is a necessary, but not a sufficient condition, for high enforcement cooperation.

While these results are an upper bound, given the strong assumption that the dataset includes all the CEAs that exist between these country pairs, it seems unlikely that any missing agreements are high enforcement cooperation agreements. A CEA of level 5 or above is more likely to be on a web site, or at least referenced in the public domain, than is a lower cooperation agreement. This is because a high cooperation agreement is likely to involve an OECD node country, whose agreements attract attention in the literature, and which comprise 7 of the 11 countries in the Bollard index. Any deep enforcement cooperation agreement
involving one of these node countries and any one of the other 4 countries in the Bollard index seems likely to be posted on the node country's web site (or failing that, to perhaps have been included either in the APEC inventory or the FTAA inventory).

While it is quite possible that there is a small number of low cooperation agreements involving these country pairs that are missing from the dataset, any that were between countries with dissimilar competition laws would only further strengthen the association between low legal similarity and low enforcement cooperation. Alternatively, while an omitted low cooperation agreement that was between countries with high legal similarity would lower the odds ratio, this would not weaken the result that we can be very confident that enforcement cooperation will be low when legal similarity is low.

To test the sensitivity of this result to the specification of legal similarity, high legal similarity is redefined as a score of 40 or above on the Bollard index (instead of a score of 45).

The estimated conditional probability that enforcement cooperation is high, where competition laws are dissimilar, is even lower, at 0.02, while, when legal similarity is high, it remains at 0.3. The marginal odds ratio is much higher, at 24.8.

Clearly, the relationship between legal similarity and depth of enforcement cooperation is sensitive to the specification of legal similarity. Furthermore, the Bollard index is subject to limitations: the sample size is small – 11 countries and 55 country pairs – and the legal similarity index is calculated at a single point in time (1994), while the depth of enforcement cooperation is measured over the period 1996 – 2006. The similarity of laws of these countries may have changed somewhat over this period, and it is possible that there are a few formal cooperation agreements involving these country pairs that are not in the dataset.

However, the strength of the association between low legal similarity and low enforcement cooperation, and the size of the odds ratios, which range from 5.3 - 24.8 across all specifications, provides strong support for the hypothesis that enforcement cooperation between competition authorities is facilitated by a degree of similarity of substantive competition laws.

c) Enforcement Cooperation and Economic Asymmetry.

Following Smith (2000), the hypothesis is that the effect of economic asymmetry on the depth of enforcement cooperation is strongly negative. That is, large economies are less likely to agree to constrain their enforcement jurisdiction in agreements with small countries, preferring to retain unfettered jurisdiction and being in a position to negotiate to do so.

The methodology used to measure economic asymmetry between signatories to an agreement is also based on that used by Smith, who measured the level of economic asymmetry between signatories to RTAs. Country shares of “trade area GDP” are calculated, using GDP in US dollars in the year the agreement was signed. A bilateral agreement is defined as being asymmetric where one country’s share exceeds 70 percent of joint GDP; for a plurilateral agreement, asymmetry is defined as the largest country share being more than two times larger than the second largest economy. Table 5 displays the data, for 90 agreements.

The estimated conditional probability that enforcement cooperation is high when economic symmetry is high i.e. when asymmetry is low, is 0.69, and when economic asymmetry is high
it is 0.55, yielding a difference of proportions of 0.14. The marginal odds ratio is 1.9, and the adjusted 95% confidence interval is (0, .28). There is a slightly higher probability that enforcement cooperation will be high when the economies of signatories are of a similar size. When high cooperation is redefined as level 5 and above, the difference of proportions is only .04, (.35 v .31), and the odds ratio is 1.2

Table 5: Competition Enforcement Cooperation and Economic Symmetry

<table>
<thead>
<tr>
<th>Enforcement Cooperation</th>
<th>Low Cooperation</th>
<th>High Cooperation</th>
<th>Total</th>
<th>Probability of high cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low symmetry</td>
<td>29</td>
<td>35</td>
<td>64</td>
<td>.55</td>
</tr>
<tr>
<td>High symmetry</td>
<td>8</td>
<td>18</td>
<td>26</td>
<td>.69</td>
</tr>
<tr>
<td>Total No. of agreements</td>
<td>37</td>
<td>53</td>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>

Overall, these results suggest only a weak positive relationship between the depth of enforcement cooperation and the similarity of size of signatories’ economies.

d) Legal form of agreement and depth of cooperation

Thus far, the depth of enforcement cooperation has been used as the dependent variable. In this final formulation, depth of cooperation is used as a predictor variable. The hypothesis is that deeper agreements are much more likely to be “intergovernmental.” A state is likely to be less willing to delegate authority to its Competition Authority to sign international commitments that impinge more on the state’s enforcement jurisdiction.

From Table 6, 93% of the agreements where enforcement cooperation is high (5 and above on the EJI index), are “intergovernmental” agreements, while only 53% of the agreements where enforcement cooperation is low are “intergovernmental.” This produces a difference of proportions of .4, and an odds ratio of 12.3.

Table 6: Competition Enforcement Cooperation and Trans-governmentalism

<table>
<thead>
<tr>
<th>Enforcement Cooperation</th>
<th>Trans-governmental</th>
<th>“Intergovernmental”</th>
<th>Total</th>
<th>Probability of high cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Cooperation</td>
<td>29</td>
<td>33</td>
<td>62</td>
<td>.53</td>
</tr>
<tr>
<td>High Cooperation</td>
<td>2</td>
<td>28</td>
<td>30</td>
<td>.93</td>
</tr>
<tr>
<td>Total No. of agreements</td>
<td>31</td>
<td>61</td>
<td>92</td>
<td></td>
</tr>
</tbody>
</table>
Because Competition Chapters in RTAs are by definition classified here as “intergovernmental”, it is interesting to look just at the CEAs. Table 7 presents the data.

<table>
<thead>
<tr>
<th>Enforcement Cooperation</th>
<th>Trans-governmental</th>
<th>“Intergovernmental”</th>
<th>Total</th>
<th>Probability of high cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Cooperation</td>
<td>29</td>
<td>6</td>
<td>35</td>
<td>.17</td>
</tr>
<tr>
<td>High Cooperation</td>
<td>2</td>
<td>14</td>
<td>16</td>
<td>.88</td>
</tr>
<tr>
<td>Total No. of agreements</td>
<td>31</td>
<td>20</td>
<td>51</td>
<td></td>
</tr>
</tbody>
</table>

The difference of proportions is now 0.71 (.88-.17), and the odds ratio is 33.8 i.e. the estimated odds of a CEA being “intergovernmental” when enforcement cooperation is high, is 33.8 times higher than the odds of it being trans-governmental.

These results suggest that the depth of enforcement cooperation is a very strong predictor of whether an agreement is trans-governmental or “intergovernmental.”

The results also illustrate that there is value in disaggregation below a “soft law/hard law” instrument dichotomy. Because of the absence of binding dispute settlement mechanisms, and because many of the agreements explicitly state they are not binding, these 51 CEAs are all arguably soft law instruments. Yet by disaggregating them by depth of jurisdictional integration, it is possible to discern two very clear patterns of state practice. Agreements that impinge less on states’ enforcement jurisdiction are left to inter-agency agreements, while deeper agreements are very likely to attract the attention and the imprimatur of the government. This in turn supports the validity of the concept of jurisdictional integration, and the value of the enforcement cooperation index for measurement and research.

VI Conclusions

This article has applied a new analytical framework and methodological approach to the mapping and measurement of international regulatory cooperation. The framework starts from first principles by disaggregating the contested concept of state sovereignty into its recognized dimensions of state jurisdiction, and defining a new variable, jurisdictional integration. The coherence and tractability of the framework is then illustrated by application to the domain of international cooperation in enforcing competition policies.

The further contribution of the article is in the following areas:

- Incorporating the comparison of international competition policy cooperation across all the different instruments in which it is embodied, including Regional Trade Agreements and regulator-to-regulator agreements.
- Incorporating the EC in a global mapping and analysis of regulatory cooperation rather than treating it as *sui generis*.
- Analysing how regulatory authority is being divided and allocated between regulators in different countries in terms of jurisdictional integration.
• Measuring the depth of international cooperation in enforcing competition policies.
• Identifying new patterns, “families” of agreements, and trends in international competition policy cooperation.
• Offering a new general approach to mapping, measuring, and analysing international regulatory networks.

In the field of competition policy at least, there appear to have been few previous attempts to directly measure the depth of international regulatory cooperation. There have also been few attempts to assess regulatory cooperation in competition policy across the different international instruments in which such cooperation is embodied. A number of studies, for instance, analyse international competition policy cooperation by looking only at the provisions in RTAs, or only at the provisions in stand-alone Competition Enforcement Agreements (CEAs).

The tractability and utility of the framework was then illustrated by assembling a new comprehensive data set of international agreements, ranking them against an ordinal index of depth of enforcement cooperation, identifying trends, and testing descriptive propositions in the literature about the nature of international competition policy cooperation. The depth of enforcement cooperation was found to have increased in the aggregate over time, and there has been both a deepening and broadening. When assessed against the new data set and framework, some descriptive propositions in the literature were found to be less than accurate or no longer accurate.

Ordinal data on enforcement jurisdictional integration was then used as the dependent variable in statistical analysis. The main findings are:

1. We can be very confident that the depth of agreements to cooperate in enforcing competition laws is low when signatories’ substantive competition laws are dissimilar.
2. Common OECD membership is a strong predictor of the depth of agreements to cooperate in enforcing competition policies.
3. The level of economic asymmetry between signatories is a weak predictor of the depth of agreements to cooperate in enforcing competition policies.

This paper contributes to the small empirical literature on the causes of international policy cooperation, which at present is largely confined to studies looking at a binary choice of cooperation versus no cooperation.21

In the field of competition policy, the results of this article build on the finding by Cernat with respect to the inclusion of consultation and notification provisions in North-South and North-North RTAs. Cernat found that a slightly higher percentage of North-South RTAs contain notification provisions of any kind compared to North-North RTAs. In contrast, when CEAs are incorporated in the analysis, and the depth of cooperation is measured in addition to the simple presence of a notification clause, North-North agreements are found to be much deeper on average than North-South agreements.

21See Mansfield, Milner and Rosendorff; Baier and Bergstrand; and Simmons.
The empirical literature on international policy cooperation also includes the study by Smith of the determinants of the depth of legalism in dispute settlement mechanisms in RTAs. Smith found that legalism in RTAs was low where economic asymmetry between partners was high. His explanation for this was that large economies gain relatively less from trade, and are unwilling to constrain their ability to resort to diplomatic power to settle disputes with smaller economies. This finding supports a realist perspective on international relations, where the wishes of more powerful states tend to prevail.

At first glance, the finding in this paper, that the depth of competition enforcement cooperation is almost invariant to the level of economic asymmetry, is in contrast to Smith’s finding, and to a realist perspective. However, two points should be borne in mind. First, with the exception of the deepest level of enforcement cooperation (level 7) none of the international competition enforcement agreements have binding force. This is in contrast to the deeper levels of Smith’s legalism index, which are binding. Therefore, the logic suggesting that larger economies will be unwilling to constrain their policy flexibility has much less force in the case of competition policy.

Secondly, part of the motivation of the US and the EC in signing deeper cooperation agreements with smaller (developed) economies is likely to reflect their desire to export their approach to competition law and its enforcement. Regulatory competition is very much in line with a realist perspective of international relations. The literature on international competition policy supports regulatory export being an important motivation for the US and the EC.

The findings in this paper suggest that OECD membership is likely to be an important factor influencing the depth of international agreements to cooperate in enforcing competition policies, particularly given the weaker relationship between depth of enforcement cooperation and advanced economy status - advanced economy status is purely an administrative classification, not an organization or a network. Given the important and widely acknowledged role played by the OECD’s Competition Law and Policy Committee, this provides some support for elite norm diffusion as a causal mechanism of international regulatory cooperation, although additional case study analysis could throw more light on this.

Finally, this paper builds on the emerging literature on trans-governmentalism in international law and international relations, by:

1. Suggesting a new approach to operationalizing the dependent variable.
2. Assembling a large cross-country dataset rather than using a case study method.
3. Finding that international cooperation in enforcing competition policies is primarily “intergovernmental” rather than trans-governmental, in contrast to previous studies.
4. Finding that the depth of international cooperation in enforcing competition policies is a very strong predictor of whether an agreement is “intergovernmental.” This finding supports a hypothesis that states are less likely to delegate authority to their competition agencies to sign international agreements that impinge on the state’s enforcement jurisdiction.

Limitations and Further Research

One potential limitation is how significant the different levels on the index of enforcement cooperation are. With most of the agreements being non-binding, and in many cases only
limited actual use being made of the cooperation provisions in them, it could be argued that too much significance is being placed on differences in the wording of the agreements.

States go to considerable lengths, however, to negotiate the wording of international agreements. This is true also in competition policy cooperation. State behaviour suggests that the inclusion or exclusion of different provisions is regarded as salient. Leading international lawyers, such as Slaughter, consider the concept of positive comity, developed largely in the international anti-trust community, to be a significant development and have advocated its expansion to other policy domains. The very strong relationship found between the existence of provisions such as positive comity, and the legal form of the agreement, lends support to the view that such provisions do indeed reflect a deeper level of international cooperation – or at least, they reflect a deeper level of intended or permitted cooperation, as there may still be obstacles to actual cooperation, such as constraints on sharing confidential information.

Furthermore, the statistical tests in this article use a binary approach, in which the 7 levels on the enforcement cooperation index are collapsed into two (high/low cooperation), and some sensitivity analysis conducted, with the results remaining robust. This reduces the scope for statistical results to be driven by spurious or immaterial distinctions between broadly similar levels of cooperation.

A related potential limitation is the validity of the index of enforcement cooperation. The well-established and carefully defined concepts of international enforcement cooperation - such as notification, positive comity, and third party enforcement - provide coherent gradations of increasing depth of cooperation. These are confirmed in the extensive literature on the subject. In addition, the progressive evolution of the OECD Recommendations through the addition of deeper levels of cooperation, and the manner in which bilateral and regional agreements have evolved in practice, provide further confidence that the enforcement cooperation index does measure what it purports to measure viz. increasing degrees of intrusion on the recognized authority of signatory states to enforce their competition laws free from external interference or involvement. This confidence is increased by the fact that there is a consistent progression of cooperation provisions in most of the agreements rated. For instance, in nearly all cases, agreements coded level 5 or 6 contain cooperation provisions from all the lower cooperation levels as well.

The next potential limitation is the reliability of the coding of agreements against the index. Relevant here is the fact that the influence of the OECD Recommendations, and of key bilateral agreements (e.g. EC-US bilateral agreements), has resulted in a high degree of uniformity in structure, language, and key clauses across these agreements.

However, in view of the importance of this issue, an inter-rater reliability test was conducted. A stratified random sample of 10 agreements was rated against the index by an independent expert in international competition policy cooperation. This resulted in an adjusted 90% rate of agreement, which provides a high degree of confidence in the reliability of the ratings.

With respect to the statistical analysis, the objective has been to begin to explore relationships between the depth of international cooperation and some of the more salient predictor variables, rather than attempt to identify all the predictor variables and control for confounding effects. Multivariate analysis of relationships would provide more complete and robust tests.

It would also be interesting to analyse the relationship, in international competition policy regulatory cooperation, between de jure enforcement cooperation and de facto cooperation.
This would require data on actual cooperation activities pursuant to international agreements, which may be difficult to obtain at a broad cross-country level, but which may be available through a case study approach e.g. the study by Marsden and Whelan (2005).

It would also be useful to measure the depth of international competition policy cooperation with respect to the prescriptive jurisdiction, and the adjudicative jurisdiction, and to test hypotheses about the drivers of regulatory cooperation in these dimensions of jurisdiction and the relationship between them.

It should be possible in principle to apply the analytical framework and measurement approach in this article to other types of international regulatory cooperation, such as the regulation of international financial markets or of international investment; to the comparative analysis of Regional Integration Agreements in different parts of the world; to the comparative analysis of the depth of cooperation within the EC across different policy domains; or to the allocation of jurisdiction between central and sub-national governments. The framework could also be used to help explore normative questions about the allocation of authority between states or between states and international organizations. For instance, the concept of jurisdictional integration and its different dimensions may help to identify the full range of horizontal and vertical policy options for allocating policy, enforcement and adjudicative authority at the international level, including in non-economic domains such as regulation of the environment.
References


