A Comparative Analysis of Administrative Innovations.*

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Abstract

Emerging but extensive literature remarks the interdependence of countries also in administrative law. Facilitated by the new public management movement, transparency, openness, and accountability as well as the use of scientific knowledge in regulatory governance are values now common in many countries. Reframing the concept of American adversarial legalism, this paper attempts to compare adoption patterns of four American-originated administrative innovations, i.e. freedom of information legislation, parliamentary office of technology assessment, regulatory impact assessment, and environmental impact assessment, among EU and OECD member states.

The empirical finding shows that, although the common origin and similar time of emergence, there is not a general pattern of administrative innovation adoption. The OECD and the EU are selective in promoting administrative reform and functionalist explanations matter more than the horizontal diffusion and the relative position of a given country in the economic and scientific ‘world society’.

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1 Introduction

Administrative lawyers and political scientists have recently turned their attention to the interdependence of administrative regimes. ‘Global administrative law’ (Cassese, 2005; Kingsbury, Krisch and Stewart, 2005; Harlow, 2006), ‘European administrative space’ (Siedentopf and Speer, 2003), ‘Americanisation of administrative law’ (Stewart, 2005; Kelemen and Sibbitt, 2004) are terms used by scholars to identify an emergent phenomena of interaction and convergence of administrations and legal concepts.

The concept of global administrative law has been captured by ‘the twin ideas that much global governance can be understood as administration, and that such administration is often organized and shaped by principles of an administrative law character.’ (Kingsbury, Krisch and Stewart, 2005, 2)

An identifiable expression of this globalisation is the spread among national states of administrative innovations in order to enhance transparency, accountability, and public participation. In the last four decades there has been a global explosion of laws guaranteeing the right to access government documents (Ackerman and Sandoval-Ballesteros, 2006), as well as policy appraisal procedures such as Environmental Impact Assessment (EIA) (Hironaka, 2002) and Regulatory Impact Analysis (RIA) (OECD Regulatory Policy Committee, 2009). But there is also a case of limited transfer—exclusively among Western European countries—of an institutional model aimed at informing and enlightening parliamentary decisions concerning science and technology, the Office of Technology Assessment (OTA) (Vig and Paschen, 2000).

Overall, these administrative innovations have the potential to enhance economic rationality(Taylor, 1984; McGarity, 1991; Pildes and Sunstein, 1995)

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1Since the 1970s, legal scholars have recognised that legal systems are transplanted from one country to another (Watson, 1978; Wise, 1990; Ewald, 1995; Mistelis, 2000; Miller, 2003; Watson, 1995; Langer, 2004).

2Such goal is central for both normative economic and positivist political science literature. In the former, rationality is an end to achieve economic efficient regulatory outcomes: Rational decisionmaking process follows a precise sequence of steps in order to achieve political goals with at the lowest opportunity costs. In the latter, rationality is a means, a political rhetoric, that permits the elected principal to oversee the agency’s activities (March and Olson, 1983). Both research strands refer to administrative procedure as incentive structure which enhances agency’s responsiveness (West, 1984).
and ensure citizens’ participation (Bignami, 2004; Ackerman and Sandoval-Ballesteros, 2006) in the administrative state. Despite this normative arguments, countries have varied substantially in their adoption choices in term of timing and type of innovation.

This paper focuses on determinants of adoption, distinguishing internal, international, and transnational influences. Theoretically and methodologically, the focus on the globalisation of administrative law provides the field for testing the transnational explanatory level. Interaction among countries goes beyond legal borrowings from country A to country B but can be vertical, or involve complex and multiple pathways (Yang and Percival, 2009; Twining, 2004), justifying a policy diffusion framework (Twining, 2005; Ackerman and Sandoval-Ballesteros, 2006). Indeed, while the literature on the reformation of administrative law is attempting to reframe the theoretical foundations in order to accommodate the several conceptual stretches imposed by the emergence of global administrative law and the promotion and spread of principles of ‘good governance’, little attention has been paid so far to the interdependency of countries in their choice to adopt administrative innovations. A comparative analysis of administrative innovations provides an useful litmus test to assess the existence of common patterns of global administrative law.

Focusing on the diffusion of scientific advice institutions, appraisal procedures, and participatory rights among EU and OECD member states, this paper is structured as follow. The next Section introduces the concepts of global administrative law and highlights the advantages of a diffusion approach. Section 3 identifies the different typologies and functions of each administrative innovation according to the different stages of the American administrative state and depicts the extent of their diffusion. Relying on a theoretical framework on diffusion of new public management innovations and tools, Section 4 presents the main explanations for adopting administrative innovations aimed at enhancing rationality and public participation and formulates the main hypotheses. Section 5 summarises the methodological approach and reports the empirical findings and Section 6 concludes.
2 The emergence of global administrative law

Systematising the emergent research strand of global administrative law, Kingsbury, Krish and Stewart (2005) reckoned a ‘globalized interdependence’. Transboundary problems have prompted interaction and communication among governments and convergence of administrative regimes through the extension of domestic administrative law to intergovernmental regulatory decisions, the institutionalisation of new administrative mechanisms both at the global and intergovernmental level, and the emergence of hybrid public/private bodies. This also led to the formation of global concepts of administrative law such as transparency, participation, reasoned decision, legality, and review of decisions and rules.

These new concepts have been the focus of several legal researches. Harlow (2006) distinguished between administrative principles, such as legality, fairness, rationality, consistency, and impartiality which stem from the rule of law doctrine and are common in all Western countries’ administrative law, and administrative values, such as transparency, participation, and accountability which has been promoted by the new public management (NPM) movement and international organisations, and later institutionalised and ingrained in national, international, and transnational administrative spaces. Although not forming a new global paradigm, NPM has increased the communication and collaboration among governments on administrative reforms (Hood, 1995; Hood, 1996). Furthermore, international organisations and transnational regulatory networks have played an essential role in reshaping national administrative law as well as broadcasting and facilitating the application of ‘good governance’ values.

Whether the principle of keeping the bureaucracy under democratic control is common in many countries (Shapiro, 1993; Harlow, 1998; Harlow, 2006; Rose-Ackerman, 2007a), good governance is a more recent phenomenon. It

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Footnote:
Since the 1980s, governments have been importing private management techniques into the management of the public services and organisations for achieving public interest (Osborne and Gaebler, 1993; Hood, 1995). This technological transfer had been driven by citizens’ demand for better value for money and facilitated by the economic globalisation that have forced national public administrations to compete each other in the same way of other product factor (Cassese, 2003; Cassese and Savino, 2005; Lynn, 2001; Karmack, 2004).
has been inserted in the political agenda, institutionalised, also through the establishment of ministries of public administration, and finally codified in constitutions or legislations and juridified by courts of several countries (Shapiro, 1993; Harlow, 2006). For instance, external circumstances like the Santer crisis and the European institutions’ democratic deficit compelled the enactment of citizens’ participation rights before European Commission (Bignami, 2004) that are accomplished through an extensive access to decisionmaking documents (Harlow, 2006). From a national perspective, della Cananea (2003) has also argued that the three founding elements for considering administrative law as a ‘province’ of a national state, that are legal positivism, the separation of powers, and the supremacy of public administration, have been eroded by processes of Europeanisation (via the active role of the European Court of Justice) and globalisation (via administrative procedures and standards set by international organisations such as the World Trade Organisation).

But, in the context of administrative law, how can one detect interdependency? The answer lies in administrative law itself: ‘Legal rules and procedures are the logical tools for guaranteeing transparency, equal participation, and fairness.’ (Bignami, 2001, 13) Remarkably, the major reforms triggered by EU legislations such as consumer and environmental protection regarded procedural elements (Bignami, 2001). From a sociological perspective, Heydebrand (2003) has recognised ‘process rationality’, defined as an interactive, participatory, negotiated, reflexive and informal decision-making, is an emergent mode of governance in the US and European countries. Indeed, a set of ‘administrative tools’ have been adopted in the US and the EU, providing best-practices for achieving good governance at the supranational level (Esty, 2006, 1524). ‘Principles of good administration’ are widely accepted among the Member States both through constitutional or statutory requirements, although the extent of principle application vary to large extent reflecting also the different administrative traditions (Swedish Agency for Administrative Development, 2005).

4 In particular, there are four functional clusters: control on corruption, sound regulatory process, transparency and public participation, and separation of power (Esty, 2006, 1489-90).

5 Specifically, the Swedish Agency for Administrative Development (2005) highlighted four different classes of traditions: ‘administrative-centred tradition’, the French legal traditions with the role of the Conseil d’Etat; the ‘individual centred tradition’ that revolved
Overall, ‘[t]he emerging global public administration is based on a number of structural adjustments that have been taking place around the globe’ (Farazmand, 1994, 81), leading to a similar administrative style (della Cananea, 2003; Kelemen and Sibbitt, 2004). Indeed, empirical evidence (Garth and Dezelay, 1995; Kelemen and Sibbitt, 2004; Kelemen, 2006; Kagan, 2007; Kelemen, 2009) confirms Shapiro’s (1993) intuition that public law is becoming globalised through the Americanisation of national administrative styles. This is because the US are usually well ahead of other countries in allowing transparency, participation, and accountability in decisionmaking. And, although common in many Western countries, the principles of strict separation of powers and due process appears to be ‘more’ peculiar and stronger in the American constitutional experience that provides a singularly innovative and successful model to follow for other countries (Shapiro, 1993). Kelemen and Sibbitt (2004) evidenced the approximation toward an American adversarial style of rulemaking with the prevalence of highly detailed, transparent legal rules and procedures as well as broad empowerment of private actors to assert legal rights.

Since the 1960s, a manifestation of the peculiarity of the American administrative state is the constant effort to constrain administrative discretion (Shapiro, 1992, 180). A set of administrative requirements has been established for such purpose with the aim to enhance factual decisionmaking through the requirements of notice and an opportunity to be heard. Thus, as next Section shows, the notion that decisionmakers and regulators should ensure procedural regularity through transparency and decision rationality has emerged in the US (Mashaw, 1999, 274). Administrative law instructs agencies to articulate the factual and analytical basis for their decisions and to demonstrate consideration of relevant policy alternatives and party comments (Schultz Bressman, 2007). Such broad goals have been pursued through the contribution of scientific knowledge in the decisionmaking. Scientific contribution has been arranged according to extensive reports on the foreseeable impacts of policy choices. Indeed, specific types of impact assessments emerged in the US, providing an international and transnational
Granted the spread of administrative values and tools, typical of the American legal style, what is relevant to assess is the rationale behind ‘the adoption by Western countries of laws, legal practices, and legal frameworks that had been adopted in the USA significantly earlier and that represent *significant departures* from long-standing European legal tradition.’ (Kagan, 2007, 101, emphasis in original). The attempt here is to assess whether and which types of interdependency among such countries has facilitated the spread of such reforms. In order to do so, the idea of this paper is to derive some measures for assessing the diffusion among EU and OECD member states of three types of policy appraisal, that is EIA, RIA, and OTA and their prerequisite legislation of free access to government information. All three policy appraisals originated almost simultaneously from the US, allowing to test comparatively the existence of common diffusion patterns. And freedom of information (FOI) law, although this innovation was first adopted in Sweden since 1766, is the American model that has been taken up around the world (Ackerman and Sandoval-Ballesteros, 2006, 111).  

A policy diffusion framework has been also suggested by lawyers interested in the diffusion of law and it is not novel in political science research on the diffusion of administrative reform. Bennett (1997) assessed through soft statistical and qualitative analysis the internal and external determinants of new accountability mechanisms, that are ombudsman, data protection and freedom information legislations; while Hironaka (2002) tested the diffusion of EIA through event history analysis. Qualitative analysis has been conducted by Barzelay (1997), who focused on auditing institutions and systems, and Ackerman and Sandoval-Ballesteros (2006), who traced the reasons for the adoption of the freedom of information legislation. Using a different theoretical and a quantitative methodological framework, Grigorescu (2003) assessed the impact of the OECD in strengthening the trans-

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6 Up to 2006, over 35 countries, including South Africa, Japan, Thailand, Australia, Canada, ‘copied’ the American model. On the other hand, the Swedish system has only been explicitly used as a model by Finland, Norway, Denmark, and the US itself (Lamble, 2003; Ackerman and Sandoval-Ballesteros, 2006, 111).

7 This strand of legal literature however recognised that the research is still emerging and based on the previous literature of legal transplant and legal reception that usually considered as unit of analysis a large innovation, such as legal codes (Twining, 2004; Twining, 2005).
transparency of its members’ administrative transparency.

But a comparative analysis can strengthen our understanding of diffusion process whether common patterns of adoption of administrative innovations are repeated over different circumstances. Before turning to the theoretical and the formulation of adoption and diffusion hypotheses, next Section traces the evolution of the American administrative state and briefly illustrates the extent and the rate of spread of regulatory governance innovations.

3 The extent of spread of ‘American’ administrative innovations

As a general strategy of influencing administrative decision and action by a prior analysis of predictable impacts, it has been argued that impact assessment is one of the major administrative innovations of the twentieth century (Bartlett, 1989, 1). Rooted in the historical efforts of legislators and governments to foresee consequences of their actions (Bartlett, 1989, 1), such administrative procedure has been applied by different political institutions in different policy areas. In order to appreciate the typologies of impact assessment and policy appraisal systems, it is appropriate to briefly describe the American administrative context in which they emerged.

There is large literature evidencing the peculiarity of the American administrative style (Kelman, 1981; Owen, 1985–1986; Smith, Jr, 1996; Strauss, 2007; Rose-Ackerman, 2007b) as a consequence of legal culture and practice changes due to broader economic forces, or by shifts in political power and political structures (Kagan, 1997, 170). But perhaps the clearest formulation has been proposed by Kagan (1997, 167–8): ‘Compared to European democracies, regulatory decision-making in the United States entails more legal formalities, more interest group participation, and more aggressive judicial review.’ The evolution of the American administrative law is depicted by a constant empowerment of institutions and interest groups that would be able to have informative resources through the potential use of information-generating devices and administrative procedures to keep bureaucratic agencies under control (McCubbins, Noll and Weingast, 1987; McCubbins, Noll
and Weingast, 1989; McNollgast, 1999). Administrative procedures that are embedded into the constitutional and normative principles of due process and rule of law (Schultz Bressman, 2007; McNollgast and Rodriguez, 2008).

From an organisational perspective administrative procedures generate information and knowledge. Following Weiss (1989), it is also possible to appreciate the different functions of information devices according to the different phases of the evolution of American administrative state. In the so-called ‘transmission belt’ model (Schultz Bressman, 2007), administrative agencies were merely implementors of accurate, detailed, and fair (in ensuring the public interest) legislative directives (Bignami, 2001, 13). In order to hold this model, the ‘dominant’ Congress relied on a very well developed information and knowledge system (Schultz Bressman, 2007), composed of institutions that function as warning, guidance, and enlightening devices (Weiss, 1989). Public participation was essentially funnelled through Congress (Bignami, 2001, 13).

In order to enhance the capacity of the Congress to enact more appropriate legislation, in the 1970s, several Congressional support agencies had been established such as the Office Technology Assessment and Congressional Budget Office (CBO), or had their mandates significantly increased, such as for the cases of Congressional Research Service, and the General Accounting Office, now Government Accountability Office. Among these models of parliamentary knowledge devices, the OTA was a model for several Western European countries (Vig and Paschen, 2000b). This institutional innovation embeds also a procedural innovation, that is the technology assessment, a long term ex-ante assessment of societal impacts of the adoption of the most relevant technologies, such as nuclear generated electric power, nano-technologies, etc. This innovation emerged in the US and has been emulated by several European countries, without, however, reaching the diffusion threshold, defined as the ‘minimum number of other individuals’

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8 Specifically, Weiss (1989, 424) defined a warning information such device that is able to alert the Congress to a problem in the society or to shortcomings in existing programs that need to be fixed. Enlightenment ‘is the presentation of new ways of thinking about an issue, a new frame for considering the problem’. Such function requires the capacity of re-conceptualise the political issue, raising the level of discussion. Further, the guidance information allows for better specification of policy alternatives, not on generic direction but on detailed issues.
that have adopted and are satisfied with the innovation (Rogers, 2003, 355). Only 14 countries out of 37 of the sample have adopted this policy appraisal. This may be due to the fact that in 1996, the OTA was dismantled by the US Congress (Vig and Paschen, 2000a, 4). Further, the OECD was only marginally interested in the promotion of such innovation throughout the 1970s (Vig and Paschen, 2000a, 10–1).

But the transmission belt model does not fit with the reality of the Congress being incapable of providing detailed instructions and delegating legislative power to administrative agencies through broad and unspecified statutes. This consideration led to the emergence of other models of administrative state that rely on the expertise of bureaucracy and its knowledge that comes from specialised experience, allowing agencies to deploy science and economics to produce sound policy. An example of this model is the Environmental Protection Act that demanded agencies to propose detailed policy proposal according to the results of predicted impacts. Specifically, EIA are reports of predicted environmental immediate and long-term consequences of major development and infrastructure projects, quantifying the costs and the benefits of each possible alternative (Hironaka, 2002, 66). This is also an example of ‘thick’ proceduralisation (Black, 2000) that was designed to allow pluralistic participation and deliberation conditioned and facilitated by legislation such as the Freedom of Information Act that allow citizens to observe administrative agencies decisionmaking (Bignami, 2001, 15). In this pluralistic model of administration, the use of information and knowledge is used through an ‘interactive mode’ in which those engaged in developing policy seek information from a variety of sources (Weiss, 1979, 428). This environmental policy appraisal have diffused rapidly to many other countries (Hironaka, 2002, 66): 36 out of 37 countries in the sample have adopted EIA at the national level. By publishing guidelines and providing training and advisors, international organisations such as the UN, the World Bank, and the OECD were particularly active in promoting and ‘packaging’ EIA.

9 Although Japan was the first countries to adopt technology assessment just after the US, its model differs from a parliamentary institutions because it was essentially used by the Ministry of Industry in order to assess the impact of new technology and innovation policy.

10 Belgium has not adopted an EIA legislation at the Federal level, but only at the regional level: in 1985 in the Wallon region, in 1989 in the Flanders, and in 1992 in Brussels Capital City. In the database, Belgium has been considered as a no adopter.
Transparency, specifically the individual right of access to government documents, is obviously a prerequisite for the full accomplishment of participation rights in rulemaking (Harlow, 2006). Ackerman and Sandoval-Ballesteros (2006) provide an excellent account of common elements as well as differences in freedom of information laws’ content and origins. Looking at the American origin, they argued FOI laws were approved in order to reinforce parliamentary capacity to control and supervise the executive (Ackerman and Sandoval-Ballesteros, 2006, 116). As a result of the rising criticism to agencies’ inattention to administrative procedures and fairness, FOI laws are the basis on which construct the ‘thick’ proceduralisation (Black, 2000) of regulatory governance. Indeed, ‘greater public involvement in the agency process and tougher judicial review were promoted in a series of statutes on open government. These statutes made it easier for individuals to obtain information from administrative agencies which in turn enabled them to ask harder questions about agency decisionmaking.’ (Bignami, 2001, 15) This administrative innovation has spread in 34 out of 37 countries. Like RIA, up to 2006 only Cyprus, Luxembourg, and Malta did not adopt such administrative requirement.

But also the emergent pluralist American administrative state has been also subject to change and reformation that, in the attempt to rationalise regulatory policy, is more concerned with unnecessary and unduly costly regulations. This reform is linked with the ‘better regulation’ political discourse that in the US prospected ‘[t]he solution ... to temper interest group demands for unreasonable regulation by restricting the ability of regulatory beneficiaries to sue agencies, engaging in skeptical judicial review of new regulations, and requiring agencies to study the costs and benefits and other impacts of regulations before they are promulgated.’ (Shapiro, 2005, 1) In order to screen agencies regulatory proposals through economic analysis, both the Congress and the President relied on a large set of ongoing procedures (Pierce, Shapiro and Verkuil, 2004) established by legislation such as the Regulatory Flexibility Act, Paperwork Reduction Act, and Presidential executive orders on Regulatory Impact Analysis. These appraisal systems function as ‘guidance’ for regulatory administrations. In this case knowledge and analysis are aimed at indicating the more effective regulatory alterna-
tives in producing broader and positive effects and avoiding to be counterproductive (Weiss, 1989, 424). The diffusion of RIA has been recently evidenced by the OECD (OECD Regulatory Policy Committee, 2009): 34 out of 37 countries of the sample adopted it.

Figure 1 shows the different rates of diffusion of the three policy appraisals and the freedom of information law. Although three of the cumulative curves are S-shaped, there are evident differences in the speed of spread. EIA is the innovation with the highest rate of adoption: By 1992 approximately 50% of the sample adopted it. FOI law has the more constant rate of adoption over time; OTA has the lowest since the total of adopters is approximately 36%. Overall, the four cases represent a good selection of innovations with high ‘penetration’ complemented with a case of arrested diffusion, ideal conditions for testing theoretical explanations in order to find common patterns of adoption.

Figure 1: Cumulative frequencies of adoption for FOIA, OTA, EIA, and RIA
4 Theoretical framework and hypotheses

The previous Section has identified FOI laws and three typologies of policy appraisal devices that emerged in the US in association to different models of administrative state and knowledge utilisation. To summarise, there are institutions supporting the legislative branch in its regulatory function, laws and statutory administrative procedures for enhancing citizens’ access and participation to decisionmaking, and economic appraisal systems for steering regulators towards political agents’ goals.

Following Yang and Percival (2009) in their discussion of the emergence of global environmental law, it is possible to maintain that globalisation of administrative models can be due to multiple pathways: transplantation and diffusion of administrative innovations; independent choices of achieving common functional goals; and integration and harmonisation through international conventions and agreements. As recalled in the previous Section, legal changes can be due to transplantations of emerging administrative values. The alternative framework is to consider the national administrations under global pressures due to the enormous enhancement of information technology as well as public sector efficiency and productivity demands, substantive force for administrative changes and reforms: ‘[G]overnments and their bureaucracies, are not only increasingly aware of global pressures for change and reform, they are increasingly making decisions that incorporate global constraints and opportunities into their own domestic agendas.’ (Welch and Wong, 1998, 43) In other words, national governments may independently get to common solutions to common problems. Finally, international organisations and global institutions can promote new administrative values, procedures, and benchmarking standards

International organisations are one of the three actors/dimensions considered by Ackerman and Sandoval-Ballesteros (2006) in their analysis of adoption of FOI laws. Specifically, the first dimension is essentially political because ‘[i]t would be a mistake to imagine that freedom of information is a natural outgrowth of economic development.’ (Ackerman and Sandoval-Ballesteros, 2006, 115) And the political discussion revolved around the necessity to keep under control the rise of the administrative state. The second dimension turns to the centrality of civil society because FOI laws do not represent an immediate benefit for those who are in power but for parties protecting broader interests. Finally, the last dimension considered is the role played by international organisations in the promotion of FOIA such as the World Bank and international non-profit organisation such the Open Society Institute, which had an important impact in the adoption of FOI legislations.
level the focus is on the dynamics of communication among networks of administrative reformers. Policy diffusion appears to be driven not by a process of blind imitation, but by a professionally driven dynamic in which policy experts select and codify best practices, models and templates of administrative reform (Knoke, 1982; Berry, 1994; Bennett, 1997; Lee and Strang, 2006). International norms and institutional forces are channeled through non-state actors policy networks as well as through the state-abovesociety structure, where elite learning is necessary if international norms are to be empowered domestically (Checkel, 1999). The combination and cumulation of such converge paths have changed the administrative law of many countries (Ginsburg, 2002; Kelemen and Sibbitt, 2004; Ginsburg and Kagan, 2005; Baum, 2007).

In similar vein, a three-levels model have been exploited by Kerstin Sahlin-Andersson (2001) in her framework for accounting the diffusion of NPM. Starting from the consideration that NPM innovations have spread globally, she argues that the problem with the actual literature on administrative reforms is its focus on the external pressures and domestic contexts using a single case approach or a limited set of countries. In other words, what is still missing is the recognition that administrative reforms in a country are part of a global trend. Accordingly, explanations of global trends are based on flows of information that are interpreted and transformed at the international and transnational level.

The internationally formed trend refers to interconnectness of governments. The idea is straightforward: governments and their elites communicate and interact, exchanging ideas, solutions, and experiences as well as learning and imitating from each other. Environmental uncertainty is faced by organizations and governments through a process of imitation. However, this process of emulation appears to rely on cognitive shortcuts, since a universal model of reform and homogenization are lacking.\(^{12}\)

\(^{12}\)Theoretical and normative aspects of NPM are not clear because administrative reforms have been adopted and implemented for their technological and operational elements, rather than their theoretical paradigm (Sahlin-Andersson, 2001; Power, 1997, 52). A general paradigm for and theorization of NPM—and consequently the institutional conditions for diffusion (Strang and Meyer, 1993)—are absent (Hood, 1995; Gow and Dufour, 2000).
On the other hand, the transnationally formed public management reforms concern the presence and role of change agents and mediators such as international organisations, consultants, and epistemic communities. International organisations are important editors of ideas and experiences. They collect data and information on member states that are summarised and transformed in order to compare and benchmark different member states. The peculiar contexts and experience of administrative reforms are inserted into broader theoretical frameworks with the aim of putting forward normative accounts and recommendations (Sahlin-Andersson, 2001, 61). In particular, the focus here is on the role of the OECD and its mediative functions (Mahon and McBride, 2009) and on those activities that facilitate the construction of policy discussion among experts on policy solutions. It is within such international expert fora that standards and benchmarks emerged (Mahon and McBride, 2009). Transnational networks are particularly capable of attracting the attention of national policy-makers to administrative innovations through a process of packaging, theorisation, and positive feedback. Overall, this model is comprehensive and appropriate in order to capture the complex phenomena of spread of administrative innovations. It integrates internal and external determinants of reform as well as the horizontal and vertical dimensions of diffusion, taking into account policy networks.

The first set of hypotheses of national formed trend refers to the concept of administrative and economic complexity. The increasing complexity of modern systems requires a rational administrative system so as to enhance capacity and efficiency (Bennett, 1997). In order to do so, administrative management needs to be based on supervision and control and the standardisation of procedures. Policy appraisal is an instrument of information that facilitates the political control of the bureaucracy. The greater the complexity and size of government, the greater the necessity to enhance the flows of information and strengthen the political control, solving all sorts of problems that involve transaction costs. Indeed, with the rise of administrative and regulatory state, there have been many attempts to combine economic efficiency and informational control (Bartlett and Baber, 1989, 148) in order to achieve legitimate regulatory choices (Freedman, 1978), through the participation of the affected parties (Richardson, 1983) and a pluralistic model
of rulemaking (Stewart, 1975), in which the development of expertise is essential for regulators to be able to hold its own in dealing with a well-informed clientele as well as to assess the capacity of affected parties to cooperate and conform (Selznick, 1995, 364).

Hp 1a: Adoption of administrative innovations is positively associated with the size of government.

On the other hand, Ackerman and Sandoval-Ballesteros (2006) argued that there is not clear relationship between economic development and wealth and the adoption of FOI law. However, as the diffusion process goes on, it is plausible to predict that also low income countries would catch up the pioneers and richer countries in adopting administrative reform. This imitative process has described as ‘hierarchical diffusion’, that is a tendency for each successive adopter to adopt at a progressively lower level of economic growth (Collier and Messick, 1975, 1308).

Hp 1b: Adoption of administrative innovations is negatively associated with economic development and wealth.

The third national-level hypothesis is about countries’ administrative tradition. Administrative institutions and their bureaucracies are important elements of social and political environment that can trigger or hinder the search for efficient administration and management (Peters, 1992, 212). In particular, administrative culture and state tradition ‘play a role in defining the way in which administration is conducted, and the receptivity of the administrative system to change’ (Peters, 1997, 78). Process of imitation relies on information cues such as the prestige and hierarchical status of a country and the similarities in identity. But, similar to the spatial model, there may be predictable patterns of diffusion: ‘we can expect that as one country has imitated another country earlier, it may continue to imitate the same country.’ (Sahlin-Andersson, 2001, 49). For instance, Anglo-Saxon countries are regarded as the first to adopt administrative innovations, followed by Scandinavian countries; while German countries, as well as civil law and Mediterranean countries are usually the laggards.\[^{13}\]

\[^{13}\]Through a review of the literature James and Manning (1996) identified a core of NMP reformers composed of Anglo-Saxon countries plus the Netherlands and Sweden.
I rely on the categorical variable of ‘legal origin’. This variable has been used by La Porta, Shefler, and their associates (1999) as a variable of government quality, determining the difference across countries in term of economic performance. This variable would probe the hypothesis of ‘fixed regional’ diffusion, in which spatial proximity matters less than common cultural and historical background in defining the patterns of horizontal communication among countries (Berry and Berry, 2007). It is important to specify that this set of legal origin dummy variables is only inserted in the model of adoption of impact assessments. This is a consequence of the exclusion from the FOI law dataset of Denmark, Finland, and Norway that as mentioned above relied on the Swedish model (Lamble, 2003, quoted in Ackerman and Sandoval-Ballesteros, 2005). Such exclusion empties one of the main categories of legal origin making such predictor untenable.

Hp 2: Adoption of impact assessment is positively associated with the English and Scandinavian legal origin countries and negatively associated with French and German legal origin countries.

Finally and again only for policy appraisal systems, a hypothesis concerning the adopter’s rationality and institutional capacity can be formulated. Adopting innovation is a complex process developed from a public organisation’s accumulated stock of knowledge and skills (Boyne, Gould-Williams, Law and Walker, 2005, 423). This rationalist and functionalist perspective regards innovations as interconnected, contingent, or complementary, following predictable patterns of adoption. ‘Past experience and the cumulative stream of innovation will aid the process of innovation adoption.’ (Boyne et al., 2005, 423) As mentioned above, FOI legislation is considered as an essential prerequisite of procedural transparency and participation that can be achieved and adopted only after the achievement of governance openness.

Hp 3: Policy appraisal adoption is positively associated with the previous adoption of FOI legislation.

Turning to the international formed explanations and the horizontal modes of information exchange, a rationalistic explanation would be based on economic pressure or conditions that influence national reforms and are international (rather than national) conditions. In this context, several authors
refer to the concept of economic competition (Dobbin, Simmons and Garrett, 2007) usually measured by the share of trade that a given country has with the rest of the world. This is because the country’s position within the international trade networks indicates potential sources of change for rationalising regulatory governance. This variable has been also used for measuring the relative position of a country in the ‘world society’ (Meyer, Boli, Thomas and Ramirez, 1997; Drori, Meyer and Hwang, 2006).

\textit{Hp 4: Adoption of administrative innovations is positively associated with the trade openness of a given country.}

The previous Sections argued that globalisation of administrative law follows a precise pattern that is the Americanisation of administrative style. In order to appreciate such source of influence and to capture how adversarial legalism has travelled from the United States, Kelemen and Sibbitt (2004) showed that between 1985 and 1999, the number of offices of American law firms in Western Europe more than doubled.\textsuperscript{14} The stock of US foreign direct investment (FDI) is used here as a broader measure of the extent of economic influence of the US in a given country.

\textit{Hp 5: Adoption of administrative innovations is positively associated with the stock of US foreign direct investment in a given country.}

Finally, the transnationally formed hypotheses refer explicitly to the OECD and the EU and the level of scientisation of a given country. With different extent, the OECD has been active in the promotion of administrative reform. Accordingly, the mediative function of the OECD should be tested through a hypothesis that depicts its role as a communication facilitator, a central broadcaster of administrative innovations. Being member of the OECD and its networks of expertise allows a given country to be exposed to ideas and best practices adopted and implemented around the world.

\textit{Hp 6a: Adoption of administrative innovations is positively associated with the OECD membership of a given country.}

In addition to the mediative function of the OECD, the EU characterised

\textsuperscript{14}‘American firms have flourished in Europe because they had the size, forms of organization, and experience in legal fields that became vital for corporate clients in the increasingly liberalized market.’ (Kelemen, 2006, 112).
itself also for being a regulatory state that has formed a considerable *acquis communitarie* targeting also public administrations. The right of access to government documents was an important element of the Charter of fundamental right of the 2003 Constitutional Treaty (Bignami, 2004). And a specific directive on environmental impact assessment has been passed in 1985. Furthermore, in the European Parliament the institutionalisation of the Scientific and Technological Options Assessment Unit (STOA) occurred in 1987, forming a hub of the network of European Parliamentary Technology Assessment established in 1990 (Vig and Paschen, 2000a). Since 2000s, RIA as been the pivotal tool of the European better regulation policy (Radaelli and De Francesco, 2007; Radaelli, 2007).

**Hp 6b:** Adoption of administrative innovations is positively associated with the EU membership of a given country.

Finally, the popularity of policy appraisals may also be related to the level of scientisation of a given countries. Science is a legitimate institution that exists at both the state and the world level (Schofer, 1998; Drori, Meyer, Ramirez and Schofer, 2003; Hironaka, 2002). Specifically, national system of science may function as ‘receptor sites’ for models flowing at the translational level (Drori, Jang and Meyer, 2006, 211). This is particular true for (Environmental) impact assessments that ‘are based on scientific styles of data-gathering and hypothesis creation, scientific understanding of problems, and borrow from scientific claims of objectivity and universality.’ (Hironaka, 2002, 71). Accordingly, the more linked a country is to international scientific activity, the more likely is a given country to adopt policy appraisal and impact assessment (Hironaka, 2002, 71).

**Hp 7:** Adoption of policy appraisals is positively associated with the number of scientific articles written in a given country.

### 5 Data and Methods

I test the above hypotheses on four datasets (one for each of the four administrative innovations) of panel data from 37 EU and OECD member states. Since I am interested in the extent of diffusion of American administrative
innovations, the US are excluded from the datasets. Table 1 summarises the models with variables and data sources associated with each hypothesis tested via logistic regression. Table 2 shows the descriptive statistics of the dependent and independent variables.

Since Berry and Berry (1990), the application of discrete event history analysis (EHA) has become established among policy innovation studies. The EHA model explains an ‘hazard rate’, which is the unobservable probability of a country to adopt an innovation in a specific year. However, the observed dependent variable is dichotomous: whether a country adopt an administrative innovation or not. The dataset for analysis is called the ‘risk set, and is pooled cross-sectional time-series, being composed of an observation for each unit at each time period during which the unit is at risk of experiencing the event.’ (Berry, 1994, 325) Accordingly, once a country adopts the administrative innovation, no observation is collected in successive years. With the exception of the FOI law dataset that starts in 1968 only two years after the US government’s adoption, I chose as start date the year of the first adoption: EIA in 1969 with 881 country-year observations; RIA in 1971 with 1016 country-year observations; and OTA in 1972 with 1106 country-year observations. Because I am interested in the diffusion of American models, Denmark and Norway, that adopted the Swedish model of FOI law, are excluded from the risk set that is composed of with 802 country-year observations for 33 countries.\footnote{Finland and Sweden adopted FOI laws well before the start date of risk set and consequently they are out of panel data.}

A further specification is necessary for the choice of the EHA model. Logistic regressions have been preferred because it describes the event probability in a distinct observation time window, whereas in the Cox model the response variable is given as the time till the event occurs, which is commonly called ‘survival time’ (Langner, Bender, Lenz-Tönjes, Küchenhoff and Blettner, 2003, 1). This feature of the logit model allows for flexibility in the analysis. In particular, it can accommodate the complication related to the late entry of a country in the risk set because of its later independence (Beck, Katz and Tucker, 1998, 1272–3). In this specific analysis, however, Czech Republic, Estonia, Latvia, Lithuania, Slovak Republic, and Slovenia, countries that
### Table 1: Models of administrative innovation adoption

#### Model of adoption of FOI law

<table>
<thead>
<tr>
<th>Hps</th>
<th>Independent variables</th>
<th>Description</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a</td>
<td>GDP per capita</td>
<td>GDP per capita (constant 2000 US$) / 10000</td>
<td>WB development indicator 2009 7th edition</td>
</tr>
<tr>
<td>2b</td>
<td>Gov’t expenditure</td>
<td>General government final consumption expenditure as % of GDP</td>
<td>WB development indicator 2009 7th edition</td>
</tr>
<tr>
<td>4</td>
<td>openc</td>
<td>Export plus import divided by GDP is the total trade as % of GDP</td>
<td>Penn world table</td>
</tr>
<tr>
<td>5</td>
<td>US FDI</td>
<td>Stock of American direct investment abroad</td>
<td>Bureau of Economic Analysis</td>
</tr>
<tr>
<td>6a</td>
<td>OECD membership</td>
<td>Dummy variable of a given country OECD membership</td>
<td></td>
</tr>
<tr>
<td>6b</td>
<td>EU membership</td>
<td>Dummy variable of a given country EU membership</td>
<td></td>
</tr>
</tbody>
</table>

#### Model of adoption of impact assessments

<table>
<thead>
<tr>
<th>Hps</th>
<th>Independent variables</th>
<th>Description</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FOI law</td>
<td>Adoption dummy variable</td>
<td>Author’s dataset compiling data from freedominfo.org</td>
</tr>
<tr>
<td>2a</td>
<td>GDP per capita</td>
<td>GDP per capita (constant 2000 US$)</td>
<td>WB development indicator 2009 7th edition</td>
</tr>
<tr>
<td>2b</td>
<td>Gov’t expenditure</td>
<td>General government final consumption expenditure as % of GDP</td>
<td>WB development indicator 2009 7th edition</td>
</tr>
<tr>
<td>3</td>
<td>Legal Origin (LO)</td>
<td>Set of dummy variables for legal origin</td>
<td>La Porta (1999)</td>
</tr>
<tr>
<td>4</td>
<td>openc</td>
<td>Export plus import divided by GDP is the total trade as % of GDP</td>
<td>Penn world table</td>
</tr>
<tr>
<td>5</td>
<td>US FDI</td>
<td>Stock of American direct investment abroad</td>
<td>Bureau of Economic Analysis</td>
</tr>
<tr>
<td>6a</td>
<td>OECD membership</td>
<td>Dummy variable of a given country OECD membership</td>
<td></td>
</tr>
<tr>
<td>6b</td>
<td>EU promotion</td>
<td>Dummy variable of a given country EU membership</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Scientific articles</td>
<td>Number of scientific articles written by authors resident in a given country</td>
<td>ISI Web of Science Expanded</td>
</tr>
</tbody>
</table>
acquired their independence in successive years\footnote{Lithuania acquired independency in 1989; Slovenia in 1990; Estonia and Latvia in 1991; Czech Republic and Slovak Republic in 1993.} have not been considered as late entries because it is difficult in the context of administrative law to make a clear cut distinction between such late independent countries and the other Central and Eastern European countries. Furthermore, given many missing values of these countries, opting for one solution instead of the other has an impact of one additional observation.

Further, in logit model the standard treatment (for most statistical packages) for missing data is the deletion of any case containing them (Beck, Katz and Tucker, 1998). The so-called ‘casewise’ deletion reduces the observations valid for the logistic regression down to 679 for FOI laws, 884 for OTA, 790 for RIA, and 644 for EIA, which are respectively 15%, 20%, 22%, and 26% decreases. Beck, Katz, and Tucker (1998, 1274) have argued that missing data on logit model is not a problem so long as the correct time variable is retained and thus there are no missing data on the dependent variable. Both conditions are respected in the risk set used for this analysis.

However, there are also three specific warnings or specification issues related to logit model (Buckley and Westerland, 2004). The first one is related to the likelihood that the observations are temporally dependent. This issue is particular relevant in a diffusion analysis which aims to assess how policy diffuse over time (Mooney, 2001; Buckley and Westerland, 2004). In order to consider ‘time seriously’ (Beck, Katz and Tucker, 1998) and avoid the unrealistic assumption of a constant hazard rate, a simple precaution has been taken. Following Carter and Signorino (2009) and Buckley and Westerland (2004), I have inserted three time variables \( t, t^2/10, t^3/100 \) in the discrete EHA. This cubic polynomial is easy and parsimonious to implement as well as effective in avoiding the problem of quasi-complete separation\footnote{This is a major problem in logistic regression because the coefficients of predictors almost perfectly determine the value of the dependent variable, determining the no-existence of maximum likelihood estimates (Allison, 2008).} caused by the use of time dummy variables. It is important to note that given the choice of not considering the the above mentioned new independent countries as late entries in the dataset, the polynomial cubic count variables associated with such countries have been set as for the other countries, setting also for them the value of \( t = 1 \) for the start date years.
The second issue concerns the selection of an appropriate functional form that, according to Buckley and Westerland (2004), should be guided by appropriate substantive and statistical theory. The issue here has to do with the underlying distributional assumption within a logit model that the maximum marginal effect occurs at the value \( \pi = 0.5 \). This may lead to model mis-specification when the distribution of the observed values of \( y \) is particularly skewed for the presence of few 1’s (as many as the countries that have adopted the innovation) and hundreds of 0’s. This is precisely the case of policy diffusion, that is indeed an analysis of ‘rare events’ (King and Zeng, 2001). In order to check for robustness of the model, rare events logit model and complementary log-log model have also been performed.

Finally, although the problem with the logit model and discrete EHA models assumption of temporal independence has been solved, diffusion studies are also about spatial dependency. A solution to relax the logit model’s assumption of independent observations is to use ‘[r]obust variance estimation [that] allows for the relaxation of the assumption that the error terms are identically distributed, and clustering allows the further relaxation of the assumption of independence between observation in the data.’ (Buckley and Westerland, 2004, 105). Robust standard deviations have been computed clustered by countries, not by regions, because the model already takes into account the cultural and legal proximity with the legal origin dummy variables.

### 6 Empirical results

Table 3 displays the empirical results for the logistic regression for the adoption of FOI law. To clarify, this model is a stripped down version of the one for impact assessment because three independent variables—legal origin, the adoption of FOI law itself, and the number of scientific articles—are not taken into account. The findings support only the transnational level of diffusion with the OECD membership dummy variable that have a positively and significant association with the probability of adopting FOI law. Holding all other variables constant at their mean, the predicted probabilities of adopting FOI law increase three-fold if a country is an OECD member.
(predicted probabilities = .0168) as compared to countries that are not (predicted probabilities = .0056). It is important to note that the other three variables of international (US FDI and openc) and transnational level (EU membership) do not have statistically significant effects on the probability of adoption. On the other hand, as predicted, the two internal dimension variables, GDP per capita and government expenditure, are significant and in the right direction (with the marginal effects equal to - .0053 and .0021 respectively). The magnitude and the statistical significance of the logistic regression coefficients have been confirmed also with the rare event logit and complementary log-log models. Also two of the three variables associated with time are statistically significant, although at the level of 10% and they were not confirmed in the rare event logit model. Although I did not have expectation about time, this statistical significance means that the probabilities of FOI law adoption depend on time. Further analyses are indeed necessary in order to quantify the extent of impact of time on the predicted probabilities and to test for the interaction of the meaningful predictors with the time variables (Carter and Signorino, 2009).

Turning to the policy appraisal adoption models, the logistic regression coefficients reported in Table 4 show that model seems to fit well only for the adoption of RIA. Specifically, the logit model for OTA adoption has only three variables statistically significant, the previous adoption of FOI law, the Government expenditure, and the EU membership. However, such results should be treated with great caution because they are not confirmed in the rare event logit model, which confirms only the EU membership dummy variable at the significance level of 5%, and the cloglog model, which confirms the FOI law and the EU membership at the same significance levels of the logit model. Accordingly, only the EU membership is a safe determinant of the adoption of OTA. With all other variables held constant at their mean, being a member of the EU increases the predicted probabilities of institutionalising parliamentary technology assessment from .0001 to .0012. The previous adoption of FOI law has a slighter effect, varying the predicted probabilities from .0001 to .0006.

Turning to RIA, the significant predictors associated with the previous adoption of FOI law, government expenditure, the English legal origin, and the OECD membership are all significant at the level of 5%, confirmed also by
the rare event logit and cloglog models. Specifically, compared to the others, the odds of adoption RIA increase more than three-fold for countries with English legal origin, that already adopted FOI law, or are member of the OECD. These findings confirm the hypothesis of fixed regional diffusion, among the English legal origin countries, and the effect of the OECD networks in diffusion administrative innovations. Finally, the model definitively is not appropriate for explaining the probability of adoption of EIA. All coefficients are not statistically significant on the rare event and clog-log models.

Comparatively, the analyses of adoption of American administrative innovation show that do not travel from the US via direct economic channels. Neither are these administrative innovations embedded in the economic and scientific globalisation and in the relative strength or position of a country in the ‘world society’. Internal determinants matters only in the adoption of FOI laws and RIA and the extent of government expenditure and economic wealth of an adoption countries are in the expected direction. When it is relevant, in the cases of FOI law, OTA, and RIA, the role of international organisations appear to be selective on the type of innovation. This leads to argue that the OECD and the EU are not able to ‘pack’ the entire administrative toolkit for their member states but instead they are effective in promoting specific administrative reforms. In particular, it is interesting the finding on the role of the European network of parliamentary technology assessment: 11 out of 14 adopters are EU member states, making this network actually the global model for this policy appraisal. Finally, administrative tradition and style do not play an essential role in the adoption of impact assessment. Overall, the findings show that administrative innovations travel following different tracks according to the type of innovation. However, these finding should be treated with great caution since they are preliminary and further robustness checks are required.

7 Discussion and Conclusion

A great attention has been recently paid to the globalisation of administrative law. Although relying on a broader theoretical framework inclusive
of national, international, and transnational influences, this paper has not found support for general patterns of diffusion of new public management innovation among OECD and EU member states. Notwithstanding there is a clear evidence of the extended ‘reception’ of American administrative innovations, such Americanisation has not followed the same pathways. Such finding calls for a distinction in theoretical explanations of administrative innovation adoption based on specific context and historical explanation/variables. Accordingly, there is no support considering administrative innovation aimed at rationalising the decision/rulemaking in an unitary and comprehensive framework of policy diffusion. Indeed, the model diverges massively in testing the two innovations, e.g. RIA and EIA, that may be perceived as the most similar in terms of procedure and methodology as well as rate of adoption. Specifically, whether the model explains relatively well the probability of adoption of RIA; in the case of EIA other diffusion patterns must be considered, such as countries’ membership to other international organisations such the World Bank, and the International Monetary Fund, and United Nations (Hironaka, 2002). Empirical findings show that international organisations, in this case the OECD and the EU, select the tools of the ‘promotional packaging’. The OECD has been interested in regulatory reform strategy and the better regulation movement (OECD, 1995; OECD, 1997b; OECD, 1997a; OECD, 2002; OECD Regulatory Policy Committee, 2009), paying also attention to information access (OECD, 1979; Grigorescu, 2003). The European Union and its member states have been actively engaged in the formation of an European-style of parliamentary information device network.

Overall, an integrated analysis of multiple innovations through multivariate or repeated event models is not justified. On the contrary, case studies research should be develop for a better understanding of the influences and mechanisms affecting the adoption of such administrative innovations.

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18By the term reception is meant the integration of foreign ideas and ways of thinking (Wiegand, 1991, 229).
References


URL: http://www.olis.oecd.org/olis/1995doc.nsf/LinkTo/OCDE-GD(95)95


Table 2: Descriptive statistics for variables employed in the Empirical Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOI Law adoption</td>
<td>0.0088</td>
<td>0.0933</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>OTA adoption</td>
<td>0.0126</td>
<td>0.112</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RIA adoption</td>
<td>0.034</td>
<td>0.182</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>EIA adoption</td>
<td>0.0446</td>
<td>0.206</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>GDP per capita/10,000</td>
<td>14472.6</td>
<td>8370.131</td>
<td>1332.119</td>
<td>59852.53</td>
</tr>
<tr>
<td>Gov’t expenditure</td>
<td>17.511</td>
<td>4.614</td>
<td>5.69</td>
<td>29.55</td>
</tr>
<tr>
<td>English LO</td>
<td>0.184</td>
<td>0.388</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>French LO</td>
<td>.289</td>
<td>0.454</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>German LO</td>
<td>0.132</td>
<td>0.338</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Scand. LO</td>
<td>0.132</td>
<td>0.338</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>openc</td>
<td>74.103</td>
<td>43.48</td>
<td>5.4</td>
<td>312.54</td>
</tr>
<tr>
<td>US FDI/10,000</td>
<td>1.693</td>
<td>4.323</td>
<td>-0.00044</td>
<td>44.2926</td>
</tr>
<tr>
<td>OECD membership</td>
<td>0.643</td>
<td>0.479</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>EU membership</td>
<td>0.336</td>
<td>0.473</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>scientific articles/10,000</td>
<td>1.009</td>
<td>1.769</td>
<td>0</td>
<td>9.9068</td>
</tr>
</tbody>
</table>
Table 3: Discrete Event History Analysis for Adoption of FOI laws
Risk set: Time: 1968–2006; Countries excluded: Denmark, Finland, Norway, Sweden, and the US

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (Std. Err.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gov’t expenditure</td>
<td>0.175* (0.073)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>-0.446* (0.204)</td>
</tr>
<tr>
<td>US FDI</td>
<td>0.034 (0.055)</td>
</tr>
<tr>
<td>openc</td>
<td>-0.009 (0.007)</td>
</tr>
<tr>
<td>OECD membership</td>
<td>1.107* (0.548)</td>
</tr>
<tr>
<td>EU membership</td>
<td>-0.700 (0.751)</td>
</tr>
<tr>
<td>t</td>
<td>0.889† (0.499)</td>
</tr>
<tr>
<td>t^2/10</td>
<td>-0.400 (0.243)</td>
</tr>
<tr>
<td>t^3/100</td>
<td>0.064† (0.036)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-12.528** (3.301)</td>
</tr>
</tbody>
</table>

N 679
Log-likelihood -91.349
χ^2 (9) 56.077

Significance levels: † : 10% * : 5% ** : 1%
Table 4: Event History Analysis for Adoption of OTA, RIA, and EIA

<table>
<thead>
<tr>
<th>Variable</th>
<th>OTA Coefficient (Robust Std. Err.)</th>
<th>RIA Coefficient (Robust Std. Err.)</th>
<th>EIA Coefficient (Robust Std. Err.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOI law</td>
<td>1.442(\dagger) (0.781)</td>
<td>1.520* (0.617)</td>
<td>-0.567 (0.654)</td>
</tr>
<tr>
<td>Gov’t expenditure</td>
<td>0.305(\dagger) (0.181)</td>
<td>0.140* (0.060)</td>
<td>0.034 (0.078)</td>
</tr>
<tr>
<td>Gdp per capita</td>
<td>1.749 (1.234)</td>
<td>-1.264(\dagger) (0.662)</td>
<td>0.276 (0.487)</td>
</tr>
<tr>
<td>English LO</td>
<td>-3.717 (2.531)</td>
<td>1.565* (0.773)</td>
<td>-0.090 (1.156)</td>
</tr>
<tr>
<td>French LO</td>
<td>-2.891 (2.359)</td>
<td>-1.343 (1.043)</td>
<td>-0.277 (0.612)</td>
</tr>
<tr>
<td>German LO</td>
<td>-0.884 (2.718)</td>
<td>0.979 (1.230)</td>
<td>0.125 (1.348)</td>
</tr>
<tr>
<td>Scand. LO</td>
<td>-5.179 (4.234)</td>
<td>0.704 (1.386)</td>
<td>-1.375 (1.815)</td>
</tr>
<tr>
<td>US FDI</td>
<td>0.176 (0.153)</td>
<td>0.490 (0.310)</td>
<td>0.074 (0.122)</td>
</tr>
<tr>
<td>openc</td>
<td>-0.027 (0.023)</td>
<td>0.004 (0.010)</td>
<td>-0.013(\dagger) (0.007)</td>
</tr>
<tr>
<td>OECD membership</td>
<td>-0.317 (0.932)</td>
<td>1.540* (0.605)</td>
<td>-0.256 (0.552)</td>
</tr>
<tr>
<td>EU membership</td>
<td>2.401** (0.928)</td>
<td>0.062 (0.541)</td>
<td>-0.173 (0.624)</td>
</tr>
<tr>
<td>scientific articles</td>
<td>-0.608 (0.591)</td>
<td>0.025 (0.281)</td>
<td>-0.325 (0.221)</td>
</tr>
<tr>
<td>t</td>
<td>2.791(\dagger) (1.621)</td>
<td>0.904 (0.738)</td>
<td>-0.038 (1.162)</td>
</tr>
<tr>
<td>t^2/10</td>
<td>-1.183 (0.770)</td>
<td>-0.393 (0.359)</td>
<td>0.084 (0.115)</td>
</tr>
<tr>
<td>t^3/100</td>
<td>0.153 (0.113)</td>
<td>0.063 (0.053)</td>
<td>-0.010 (0.021)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-29.167** (10.870)</td>
<td>-14.487** (4.967)</td>
<td>-3.904.684** (0.953)</td>
</tr>
</tbody>
</table>

| N              | 884                                | 790                                | 644                                |
| Log-likelihood | -52.123                            | -85.802                            | -109.546                           |
| \(\chi^2\)_{(15)} | 76.679 (4.967)                    | 117.809 (9.53)                     | 87.957                             |

Significance levels: \(\dagger\): 10% \(*\): 5% **: 1%