

**THE WORLD OF REGULATORY  
AGENCIES: INSTITUTIONAL  
VARIETIES AND ADMINISTRATIVE  
TRADITIONS**

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# The World of Regulatory Agencies: Institutional Varieties and Administrative Traditions

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**Abstract:** The paper introduces a dataset of *de jure* institutional characteristics of regulatory agencies in more than 100 countries and 16 sectors. By doing so it discusses up to which degree countries with different administrative traditions have shaped the incorporation of such institutions into their own administrative culture. The paper shows that there are differences in the role that society plays in the agencies, in their political autonomy and in their bureaucratic autonomy by administrative tradition.

**Keywords:** Regulatory Agencies, Administrative Traditions, Role of Society, Political Autonomy, Independence, Bureaucratic Autonomy.

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# The World of Regulatory Agencies: Institutional Varieties and Administrative Traditions

## 1. Introduction

This paper introduces a new dataset on the institutional characteristics of regulatory agencies, which aims to scrutinize the variety of specialized regulatory institutions existing in the world in the year 2010. The dataset covers 115 countries and 16 different sectors. The dataset measures a number of institutional features and organizational aspects of regulatory agencies. How formal relations with other political institutions are designed, or the scope of responsibilities and powers assigned, are some of the dimensions considered among the variables identified. This paper details how the dataset was constructed, discusses the selected variables and the criteria established for designing the sample, as well as some of the methodological problems that arose when identifying and selecting the data.

In so doing, and based on the literature on administrative traditions, the paper offers a preliminary analysis of the extent to which the diffusion of regulatory agencies in the last 20 years has led to similar organizational and institutional patterns across countries, or whether existing administrative traditions exerted a major influence on the final regulatory agency model adopted. To disentangle the relation, the analysis focuses on seven particular administrative traditions - Napoleonic, Anglo-Saxon, Latin American, Post-colonial, Germanic, Scandinavian and East Asian, on the one hand, and discusses the role of civil society in regulatory agencies, political autonomy over agencies and the degree of bureaucratic autonomy of agencies, on the other.

Results show that countries from different administrative traditions have adapted the institutional model of regulatory agencies and have developed new institutions more according to their traditions, specially with regards to the involvement of society and the bureaucratic autonomy of the organizations. The paper is aimed at understanding both the mechanisms of differentiation in institutional settings that countries with differenti-

ated administrative traditions have used as well as to understand the process of diffusion of regulatory agencies in several countries.

The paper is organized as follows: Section 2 presents the theoretical framework on administrative traditions and models of institutional design of political institutions. Section 3 describes the process of data acquisition and the challenges of the database. The analysis of the institutional adoption of regulatory agencies by administrative is performed in Section 4, while Section 5 discusses the findings and concludes.

## 2. Context and Theoretical Framework

Regulatory agencies refer to a major transformation of states during recent decades. Few regulatory agencies already in place dated back to the early XX century, but after its mushrooming at the end of the century, almost all countries in the world have established a bunch of them, and many have created quite a large number of agencies comprising different sectors.

Regulatory agencies stand at the intersection of two interrelated institutional and political dynamics: agencification and regulatory expansion. Agencification represents the establishment of an agency as a "structurally disaggregated body, formally separated from the ministry, which carries out public tasks at a national level on permanent basis, is staffed by public servants, is financed mainly by the state budget, and is subject to public legal procedures" (Christensen and Lægreid, 2006, 5–6). On the other hand, regulatory expansion represents an increase in the use of regulatory policies and instruments as modes of governance throughout the world during recent decades. Multiple regulatory reforms in a large number of sectors, often related to market liberalization, but also those beyond the logic of economic regulation, namely, in the social and risk prevention areas, have contributed to the expansion of the so-called regulatory state (Majone, 1997; Moran, 2002; Jordana and Levi-Faur, 2004).

Regulatory expansion is not always the result of the establishment of a regulatory

agency, and many established agencies are not of a regulatory nature either. However, the organizational model of the regulatory agency has become a standard in the current administrative world (Jordana, Levi-Faur and Fernández-i-Marín, 2011). Identifying the number of characteristics of regulatory agencies allows us to capture some basic characteristics of the regulatory state, and to discuss its nature and its variation range.

This paper provides a preliminary analysis of the data gathered and aims to discuss the main variations in regulatory agencies' characteristics. The main hypothesis refers to their degree of similarity. Assuming that regulatory agencies spread over the world in the last two decades, we examine whether, despite having been established in different political contexts and for different regulatory purposes, they present relatively homogeneous characteristics in the year 2010 or rather show relevant institutional differences across countries and sectors. The former alternative could be supported on the basis that most regulatory agencies in the world were created in a short period of time during the 1990s, being this triggered by a strong process of diffusion expanded worldwide. Under these conditions, we might expect isomorphic pressures to have conducted to a one-fits-all institutional model that was adopted as a standard almost simultaneously in most countries and sectors. Based mainly on emulation mechanisms, we expect this model to have remained almost unaltered during the process (see Jordana and Levi-Faur (2005), for the case of diffusion of agencies based on emulation in Latin America; Guillén and Suárez (2005); Jordana, Levi-Faur and Fernández-i-Marín (2007)). The latter alternative suggests that institutional and organizational variations are important within the world of regulatory agencies. This is either because these agencies were already established with particular adjustments in each case, or because the years after its establishment, agencies were progressively adjusted to their particular political and sectoral contexts (for example, see Yesilkagit and Christensen (2010), on the role of historical and cultural factors in shaping the characteristics of regulatory agencies).

Previous studies have shown the persistence of some significant variation in the institutional design of regulatory agencies in different countries, but for a group of geographi-

cally closer nations (Jordana, Levi-Faur and Puig, 2006; Tenbücken and Schneider, 2004). Hence, we find that within a regional or sub-regional area national differences persist, and authors have highlighted the role of national administrative traditions when explaining the limitations of external pressure, as in the case of EU regulatory pressures (Barbieri, 2004) and of Europeanization processes (Jordana, Levi-Faur and Puig, 2006). However, discussion about the extent to which distant countries having been shaped by very different administrative traditions show a very similar institutional design in their agencies, has not been addressed in much detail (see, however, Gilardi, Jordana and Levi-Faur (2006).

Expecting to find some variation within the world of regulatory agencies, we also aim to look for possible explanatory reasons underlying such differences. In this sense, we will consider whether national administrative traditions intensively shaped the adoption of these new institutions in different countries or groups of countries (see Sosay (2007), for a discussion on the relation between regulatory agencies and administrative traditions from this perspective). Contrariwise, the analysis will also show to what extent the implementation of regulatory agencies entailed a radical break with these long-standing state traditions (Elgie, 2006).

In other words, we aim to discuss to what extent different administrative traditions were capable of overcoming standardization pressures during the diffusion of regulatory agencies wave and managed to incorporate such institutional innovations in a way that avoided major disruptions in their main distinctive traits. As an alternative hypothesis, we might expect that national administrative traditions did not have a major impact, but that the different sectors were capable of shaping the institutional characteristics of regulatory agencies in a very distinct manner. However, this cross-sectoral analysis will be further developed at a later stage of the research process.

According to Painter and Peters (2010b, 3), "there is ample evidence on the variety of responses of different national administrative systems to contemporary global reform movements". They argue that despite significant reforms in a variety of national administrative systems in recent decades, some underlying values remain unchanged. Some

of these values, combined with particular administrative structures, allow them to observe persistent patterns in the nature and identity of public administration across different countries: "An administrative tradition is a more or less enduring pattern in the style and substance of public administration in a particular country or group of countries" (Painter and Peters, 2010*b*, 6). Among the multiple factors that can guide the categorization of public administrations, they identify four variables to differentiate among diverse administrative traditions. First, they identify the relations of public administration with society as a key variable to differentiate between the contractarian and organic conceptions of the state. The second variable refers to the relations with political institutions, identifying thus the intensity of political involvement of the bureaucracy. The third variable relates to the centrality of the law for the role of public servants, taken as how legal culture informs the public administration predominantly. Finally, the fourth variable is the conception of accountability within each public administration tradition, which can be based on internal controls within the bureaucracy, or rather focused on the supervision by political institutions.

Based on an adaptation of Painter and Peters' categories to differentiate administrative traditions, we rely on similar variables to identify the possible existence of traces appertaining to different administrative traditions in the formal characteristics of regulatory agencies in the world, already identified in our dataset. In this sense, and bearing similarity to Painter and Peters' first variable, we also identify the role of society within the agency as our first variable. We focus on the role of professionals, regulatee, and social activists in shaping the regulatory agency. We expect that agencies in countries having a more organic tradition of societal involvement in the public domain, often by means of corporatist structures, will show some more explicit procedures to allow the participation of society actors - individually or collectively - the agency's current activities and main decisions. The social control tradition in state institutions will emerge under this dimension in contrast to administrative traditions based on a more clear separation between the state and civil society.

Our second variable relates to the political autonomy exercised over the agency, either through the appointment systems of agency heads and board members, and through external sources of control, as for example, the role of ministries and legislative chambers in supervising the agency's activity. This does not fully correspond to Painter and Peters' second variable as far as we are interested in identifying the rules allowing political autonomy over the agencies. Contrariwise, these authors considered the political role of public servants more widely. Here we might expect two different configurations: on the one hand, agencies under strict supervision and control by the executive, and on the other hand, agencies more accountable to the legislative (or the judiciary) and having a weak connection with the executive. An administrative tradition of higher fragmentation will be visible when there is less identification with the executive branch, compared to traditions of extreme hierarchical control (based on Weberian bureaucratic models) where agencies are under the will of the executive. Presidential systems are probably closer to fragmented administrative systems (as those having multiple veto players), but administrative traditions developed over time can also be very stable due to path-dependence institutional processes.

Our third variable to identify the role of administrative traditions within regulatory agencies is bureaucratic autonomy vis-à-vis political and societal dimensions. This variable resembles, to some extent, the fourth variable identified by Painter and Peters. However, we do not focus directly on public agencies' accountability, but rather assume a wider interpretation of bureaucrats' capabilities to act on their own, minimizing external supervision and guidance, and make thus, their organizations stable. Here we expect to observe the formal rules and protection mechanisms that allow agencies' employees, either civil servants or those under labour contract, to act with a limited fear of political or societal pressure or either direct intervention. Under this dimension, we expect countries having a strong tradition of bureaucratic autonomy to allow regulators to maintain and reinforce their protection mechanisms to secure the autonomy status of agencies. Contrariwise, countries with administrative traditions excluding organizational provisions for

the protection of the bureaucracy will prevent the introduction of measures to enhance the autonomy of agencies' employees.

Many administrative traditions can be identified, and there is not a complete consensus about how many traditions there are (Painter and Peters, 2010a; Yesilkagit and Christensen, 2010; Rugge, 2003; Cheung, 2005). However, and based on the discussion in the existing literature, there are some major traditions as many authors often recognise. Just for illustrative purposes, we have identified seven different administrative traditions to exemplify the type of analysis we intend to pursue. Inspired by the classification proposed by Painter and Peters (2010a), we identified seven different traditions. Some reflect more "pure" traditions that are based on many centuries of administrative state development as in the case of Anglo-Saxon, Germanic, Napoleonic and Scandinavian traditions. Others constitute modern "hybrids", like the Latin American tradition, and to some extent, the East Asian tradition. The case of Post-colonial tradition involves mainly countries from Africa and South Asia, who share different colonial inheritances.

In analyzing the characteristics of regulatory agencies over the world, we should expect that, if administrative traditions matter, we should be able to identify these different intensities reflected in agencies' characteristics according to each administrative tradition and identified variable. To this purpose, we have assigned all countries to a particular administrative tradition (see Appendix A). Thereafter, we should expect that agencies in countries identified under each administrative cluster will show some of the expected characteristics, or at least, will show tendencies towards such directions. Obviously, different classifications of administrative traditions might modify the results (also when selecting which countries belong to each cluster) and for this purpose, we should replicate our analysis with different classifications in a more advanced stage of our work.

### 3. Database Description and Elaboration

The source for the data presented here is a database of regulatory agencies built on a non-nested structure of data or two-way cross-classification (Jordana and Levi-Faur, 2005; Park and Jensen, 2007). Regulatory agencies are observed at two overlapping categories of attributes: countries and sectors.

#### 3.1 Scope

The database comprises regulatory agencies in 16 policy sectors and in countries having a population of more than 10 million inhabitants and/or a GDP level above 100,000 million current US\$ GDP and which were operative on 31 December 2010. Policy sectors include central banking, competition, electricity, environment, financial services, food security, gas, health services, insurance, pensions, pharmaceuticals, postal services, security and exchange, telecommunications, water, and work safety.

Though not fulfilling the population or the GDP criteria, countries were additionally included in the database to complete thus three different regions, as described below:

**America** Andean Community (CAN), Common Southern Market (MERCOSUR), Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR), North American Free Trade Agreement (NAFTA) + Cuba and Haiti

**Europe** European Union 27 + Iceland, Norway and Switzerland

**South East Asia** Association of Southeast Asian Nations (ASEAN)

Thus, we have collected data for 738 regulatory agencies in 16 policy sectors and 115 countries. A regulatory agency is defined by the following four main criteria:

1. Regulatory agencies should have an organizational identity: they should represent an organizational unit formally separated from larger departmental and ministerial structures or from public bureaucratic frames

2. Regulatory agencies should focus on regulatory tasks, namely, rule supervision, rule enhancement, and rule definition, among others
3. Regulatory agencies should be stable and public entities, regulated by public legal acts and ordinances, and performing public tasks, being their employees public servants - whether tenured or not - and their budget under public control
4. Regulatory agencies should be of national scope

### 3.2 *Variables*

The database addressed various variables related to the organizational characteristics of agencies, on the one hand, and others related to the identification of the formal policy making process, on the other.

Questions included the year of establishment of the agency and whether it was operative on 31 December 2010, together with fundamental organizational and institutional variables. These referred to the current legal document governing the regulatory agency, and the specific regulatory policy competences assigned to the agency, including the capacity to establish prices, to determine market entries and exits, to elaborate norms, to supervise, to implement sanctions, and to intervene in conflict resolution. Moreover, the database aimed at capturing whether these competences are the sole responsibility of the agency, or whether these are shared with other public actors as in the case of public agencies, the executive or the parliament. Finally, we also considered who is responsible for final regulatory decisions, and whether this power relies exclusively on the agency head, the agency board, or on none of them.

In terms of the main actors responsible for the regulatory agency's decisions, data included the provisions and requirements determining the appointment, renewal and dismissal of agency heads, on the one hand, and of boards and board members, on the other. The specific functions of boards and their composition were also integrated into the database. In addition to some general questions on the size of the organization, the

data also captured specific aspects of the internal organization and the finances of the agency. These referred to the formal internal distribution of responsibilities among board members, and the identification of who is responsible for the elaboration of the budget proposal and how this is distributed, and for personnel policies and practices.

To capture the accountability of regulatory agencies, several questions addressed the particular accountability and transparency mechanisms devised by the agency: mechanisms established for the participation of civil society and the availability of public information - namely, minutes of board meetings, agency resolutions, and annual report. We also assessed the accountability of agencies towards the Executive, the particular ministry, and Parliament, while trying to capture the specific obligations of the agency towards the government and Parliament.

The construction of the database relied on the information available on regulatory agencies' websites, being this information meticulously scrutinized and juxtaposed against legal documents - laws, decrees, ordinances and statutes- and complemented by other available sources.

The database does not provide an exact and detailed mapping of regulatory agencies, but rather works on a sample of regulatory agencies to explore variation across countries and across policy sectors. As mentioned, one of the specificities of the data collected is that the units are clustered in non-nested structures. To the extent that every unit shares thus characteristics with the units of the same country and the same sector, the analysis builds on the variation observed through the within country component - how one country behaves compared to others - and the within-sector component - how one sector behaves compared to others - simultaneously.

### 3.3 *Countries and Sectors*

We first observe the distribution of national regulatory agencies by countries in the year 2010. In Figure 1, we can see the distribution of the number of regulatory agencies in each

country. Clearly, there is no country having a single agency for each of the 16 sectors considered in our sample. Here we observe the number of actual public organizations having a role as regulatory agency, and not the number of sectors whose regulation is under the responsibility of a regulatory agency. A large number of countries have established about 6-7 agencies, and very few countries have more than 10 agencies. A smaller number of agencies in a country is also quite frequent, but regulatory agencies are present in most of the selected countries we have selected (115). There are no countries having discarded the regulatory agency model among their institutional innovations.

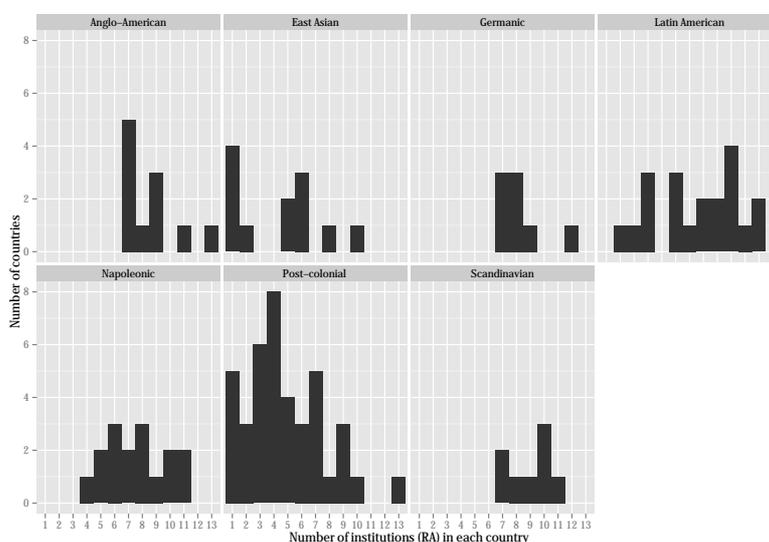


Figure 1: Barplot with the number of existing regulatory agencies in each country, by administrative tradition. Notice that the bars represent number of "institutions", not "spaces" (country \* sector) occupied by a regulatory agency. This is more indicative about the number of agencies in each administrative tradition.

The distribution of the number of regulatory agency shows that countries with different administrative traditions do not have a similar concentration of regulatory agencies. Countries that belong to the Anglo-American or the Latin American traditions have tended to create more institutions than those from Germanic, Napoleonic or Scandinavian traditions. In the other side of the spectrum, clearly countries with East Asian or Post-colonial traditions have created fewer institutions.

### 3.4 *Agencification spaces*

Looking only at the number of institutions formally created may be misleading, because agencies can be associated to more than one sector. Therefore, the picture of the distribution by country must be complemented by the picture by sector.

Multi-sector agencies are a growing phenomenon (Jordana and Levi-Faur, 2010). Our database findings indicate that in 2010 67% of regulatory institutions are responsible for a single sector, while 23% take responsibility for two different sectors, 6% are responsible for three sectors and a remaining 4% is in charge of four or more sectors (up to six). This means that the overall percentage of sectors in which regulation is separated from traditional ministries reaches a very significant percentage of all possible cases. Having 1840 "spaces" of country-sector regulation (115 countries \* 16 sectors), 1114 are covered by autonomous agencies instead of hierarchical structures within the government. This represents slightly more than 60% of the cases, and it is a clear indication of the importance of this institutional model in many different sectors where regulatory instruments predominate in the policy-making process. The distribution of sectors across countries is extremely uneven (Figure 2).

The distribution of agencies by sector is also uneven over the world (Figure 2). While Central Banks - and to a lesser extent telecommunications regulatory agencies - are present in almost all the selected countries, other agencies are much less frequent. For example, regulatory agencies in the areas of work safety, health services or environment are only present in about 25% of the selected countries (Figure 2). This does not mean that there are no regulatory agencies in these policy fields in all the other countries. However, it shows that the dominant institutional form is a one of a separate agency, following a more hierarchical structure within the ministry. Other sectors show a more mixed pattern. For example, agencies in sectors such pharmaceuticals or competition policy, were already in place in about half of the countries considered. To what extent this is also related to the existence of different administrative traditions or not, is something we will

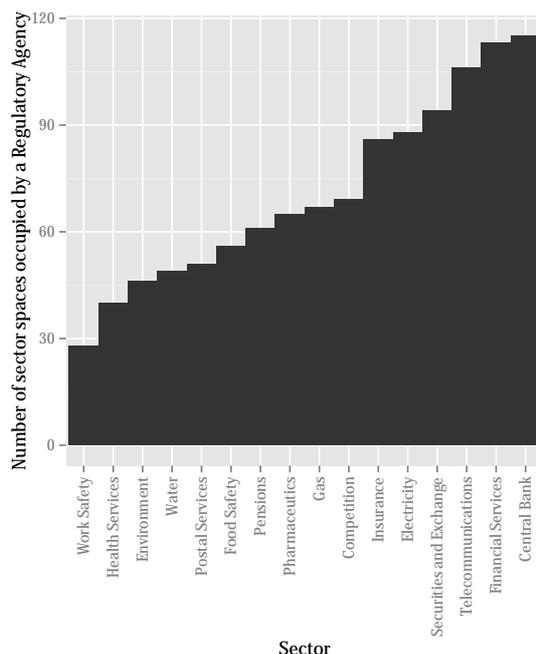


Figure 2: Number of "spaces" occupied by each sector.

discuss latter.

The approach by agencification spaces also enables us to consider the phenomena of agencies that cover more than one country. Although those cases are very rare (in fact it only happens in few cases of West-African countries for agencies in the economic area), we must consider them when looking at the units of analysis of our analysis. Therefore, from the 738 regulatory agencies, the analysis is based on 748 units (738 regulatory agencies plus some duplicates in few West-African countries). It would not be fair to duplicate cases of sectors, because the comparison variable –administrative traditions– is associated to countries, but not to sectors. Figure 3 illustrates the sector-country "spaces" covered by regulatory agencies across the different regions of the world.

### 3.5 Operationalization of Societal, Political and Bureaucratic Dimensions

Within our dataset of regulatory agencies, we have identified about 50 variables that refer to different institutional and organizational aspects of agencies (see Appendix B). In this

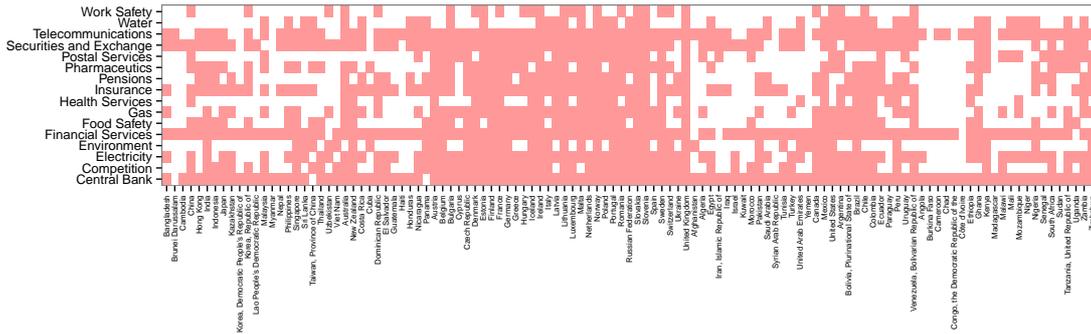


Figure 3: Matrix of agencification space (country \* sector) occupied by at least one regulatory agency. Countries are sorted by regional groups.

paper, we aim to explore to what extent this data may reveal different aspects of regulatory agencies, and in particular, how these can contribute to explaining country variations according to the three major theoretical variables already identified. We expect differences among these variables will allow us to track the role of various administrative traditions in regulatory agencies' characteristics as they appeared in 2010. To this aim, we contrast if each of the seven clusters of countries that we have identified, each one based on a different administrative tradition, shows a particular combination of intensities for each of the three variables we have considered in terms of regulatory agencies' characteristics.

The collected data on the characteristics of regulatory agencies includes variables of many types and nature. Most of them are categorical variables, as in the case of the type of appointment, where we identify which public body is responsible for the appointment. Other variables include ordered variables (categories with an order, but without a specific numerical value), binary variables (i.e. to capture whether the agency has published its annual report online or not) and very few continuous variables (as in the case of the agency's head term of office).

Our analysis will proceed along several steps. First, we will identify a smaller number of variables of regulatory agencies that are conceptually related to each of the three main theoretical variables we use to track the existence of administrative traditions. In so doing, we will use a mixed factor analysis to consider different axis and to observe

the different combinations that can emerge. In case we find differences, then we would be able to discuss to what extent administrative traditions influenced the shape and the formal configuration of regulatory agencies. In a second step, and based on the clusters of countries belonging to a particular tradition in their regulatory agencies, we will be able to discuss whether previous administrative traditions existing in a country had the power to shape new institutional adoptions. Contrariwise, we will also be able to assess whether the wave of institutional diffusion facilitated the adoption of regulatory institutions based on foreign administrative traditions.

### 3.6 *Estimation*

Factor analysis is the appropriate method of data reduction when variables are strictly continuous. However, when working with continuous variables, the use of mixed factor analysis is more the exception than the rule. In political science, mixed factor analysis was developed by Quinn (2004) in a paper where he applied it to ascertain the value of political-economic risks of a sample of countries based on a mix of different variables. More recently, Rosenthal and Voeten (2007) used this method to measure legal systems. The results were provided in an article that also tried to gain insights into the "de jure" characteristics of institutions. The idea underlying mixed factor analysis is to generate an  $n$ -dimensional score of a latent trait that the researcher assumes to be captured by several variables. In our case, we intend to capture three different latent traits of the data, namely the role of society, political autonomy and bureaucratic autonomy.

Classical approaches to inference do not work well with the nature of the process needed to derivate the scores. Therefore, Bayesian inference is usually the preferred method. More specifically, we have employed the "MCMCmixfactanal" function of R (Quinn, 2004). The statistical process generates samples of the target distribution for the following three parameters. First, scores of the latent trait (as much parameters as observations we have), being these the parameters of interest. Second, estimations for

the difficulty of each variable tell us whether a feature is common in the sample or not. Finally, estimations of the discrimination of each variable, which is the Mixed Factor analysis name for the factor loadings in factor analysis, and tells us whether a concrete variable is relevant for explaining the variation in the latent score. Therefore, apart from knowing whether each regulatory agency has a specific value in each of the three dimensions, it is also possible to know which the relevant variables that provide information for the score are.

Once a score for each of the regulatory agencies is obtained, the agency is assigned to cover one country (or more, in the case of the few West-African economic agencies), which in turn belongs to an administrative tradition according to Painter and Peters (2010*b,a*). The  $I$  units of analysis (regulatory agencies in countries) have  $y$  scores for each of their  $D$  dimensions ( $y_{id}$ ). The formal model to assess the differences of the scores by administrative tradition states is based on a simple comparison of means ( $\theta$ ) for each of the  $T$  administrative traditions and dimensions ( $\theta_{dt}$ ). Equation (1) represents the formal model.

$$\begin{aligned}
 y_{id} &\sim \mathcal{N}(\theta_{dt}, \sigma_d) \\
 \sigma_d &\sim \mathcal{U}(0, 1) \\
 \theta_{dt} &\sim \mathcal{U}(-2, 2)
 \end{aligned}
 \tag{1}$$

In case of the  $\theta_{dt}$  parameters being different by administrative tradition (subscript  $t$ ), results would indicate substantive divergence of the formal institutional aspects by administrative tradition, and therefore a differentiated adoption of the institutional model of the regulatory agency.

## 4. Analysis of Institutional Adoption by Administrative Tradition

### 4.1 Role of Society

The first figure (Figure 4) is devoted to the variables selected to measure the aggregated social dimension: how society is involved in the activity of regulatory agencies. The most significant variables are related to professional experience requirements for agency heads and board members, together with those related to the existence of transparency instruments, namely, the publication of the agency’s reports, resolutions, and minutes, online. However, the existence of public hearings does not seem to be relevant for this dimension. In addition, the establishment of an advisory council within the agency or the existence of consumer’s office, appear on the negative side, which may suggest the presence of an active second factor within this social dimension, more related to direct interaction with audiences.

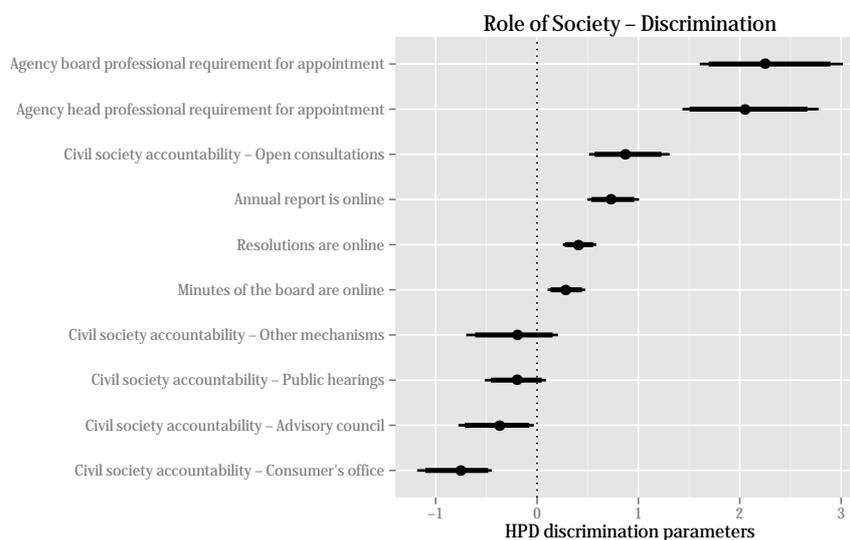


Figure 4: Discrimination parameters for the dimension “role of society” which measures civil society involvement in regulatory agencies.

When observing how this dimension behaves across the different clusters of administrative traditions established (Figure 5, we find similarly interesting results. First, it is

important to note that variation across countries is very large, and it is easy to observe different patterns along the seven clusters. On the one hand, the Napoleonic and the Germanic traditions are quite similar, while the Scandinavian case appears to be more intensely oriented towards societal involvement; also, many agencies within this tradition show a very similar character. On the other hand, post-colonial and East Asian clusters show a weaker social involvement in regulatory agencies. We also observe that Latin American agencies are very comparable in this respect to Germanic or Napoleonic traditions, showing a medium social involvement. As to the Anglo-Saxon tradition, here there is not a peak, but a very flat distribution in the positive side, showing that social involvement is relevant, but there is not a predominant model.

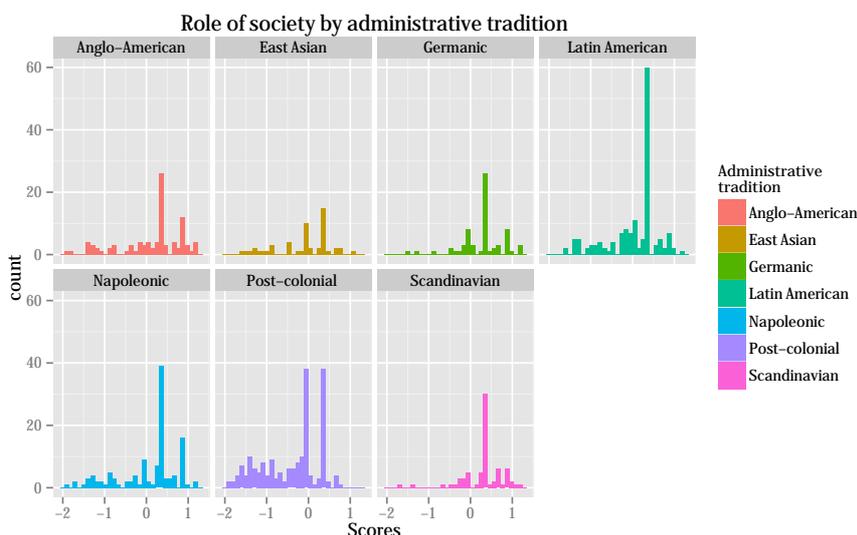


Figure 5: Distribution of the scores of the role of society by administrative tradition.

## 4.2 Political Autonomy

The more significant variables for the dimension related to the political autonomy exerted over regulatory agencies are those referring to the reasons for agency heads and boards dismissal, the existence of fixed terms for the agency head, and the renewal of mandate of both agency heads and agency board members (Figure 6. The variable fixed term is important for this dimension, contributing to increase the political autonomy of the agency

by the executive. The possibility of office renewal also increases political autonomy significantly. The particular actor responsible for the appointment of agency heads and board members shows generally a weak discrimination power and it does not seem to play a big difference to make agencies have higher or lower scores.

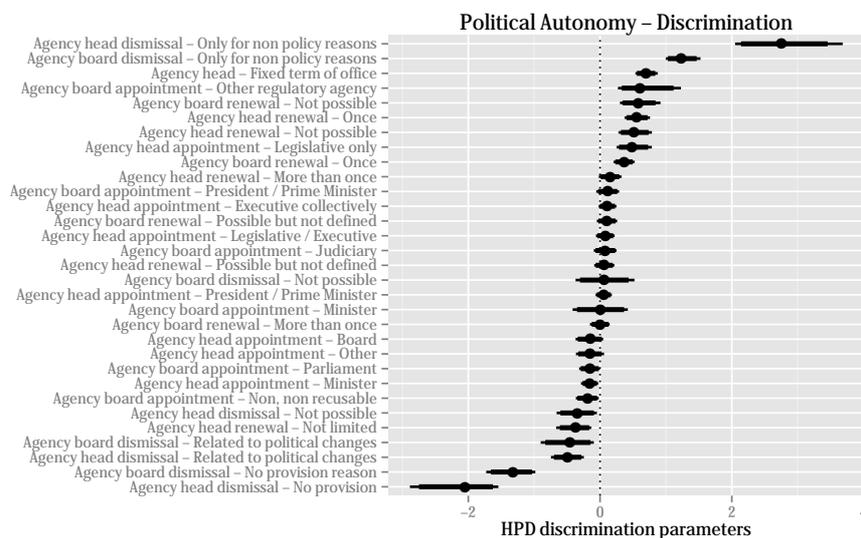


Figure 6: Discrimination parameters for the dimension “political autonomy” which measures the degree of autonomy of the institution vis-à-vis the political power.

The political autonomy dimension is quite distributed in most of the countries’ administrative clusters (Figure 6), showing that in relation to this dimension there is in many cases a double peak. In turn, this points to two types of agencies in different traditions, at least regarding how the political autonomy is formally designed. Political autonomy appears to be weaker in East Asian and Post-colonial traditions, but also in Germanic and in Scandinavian traditions. In this sense, we can argue that the spread of the “independent agency” model across the world during the 1990s, as a key normative characteristic for modernizing administration was not very effective in shaping multiple administrative traditions. However, despite the large dispersion observed, for some cases, as the Napoleonic and to less extent the Latin America clusters, there is also a significant group showing high levels of political autonomy. It is worth noting that there are both a similar number of cases in the Anglo-Saxon tradition having either a weak or a strong political

autonomy.

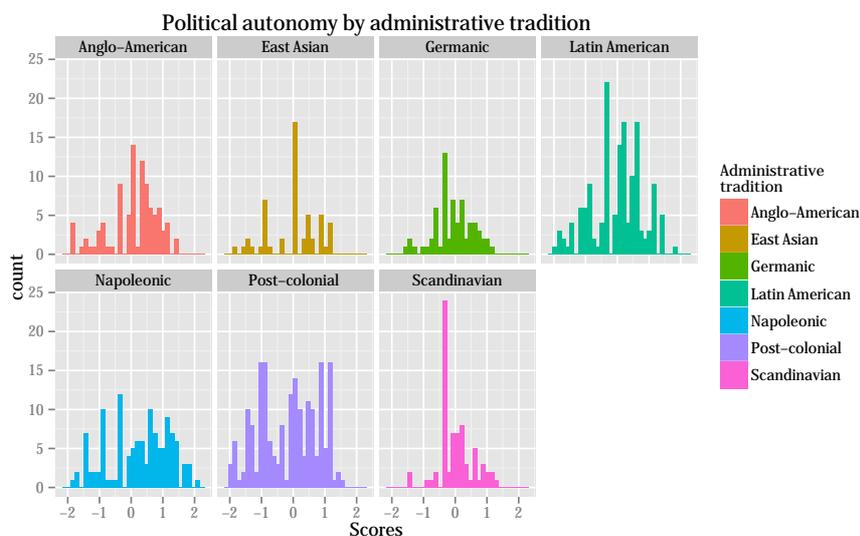


Figure 7: Distribution of the scores of the political autonomy by administrative tradition.

### 4.3 Bureaucratic Autonomy

When looking into the bureaucratic autonomy of regulatory agencies, the more significant variables (Figure 8) refer to organizational structure and proceedings established within the regulatory agency, being this especially marked in those cases where regulatory agencies are responsible for the definition and implementation of the personnel policy and of the agency’s organizational structure. Contrariwise, the relation is reversed when the government only is the responsible of the definition of the personnel policy and the organizational structure, showing hence lesser degrees of bureaucratic autonomy. It is worth mentioning that, by far, the most relevant indicator of a high bureaucratic autonomy is the agency capacity to perform alone the personnel policy.

In this third dimension, which refers to agencies’ bureaucratic autonomy (Figure 9), we also observe significant variations, showing that administrative traditions probably shaped regulatory agencies regarding this last dimension. We should note that this dimension is conceptualized as bureaucratic autonomy, namely against the notion of hierarchical bureaucracies within the government, which might aim to have exercise some organizational

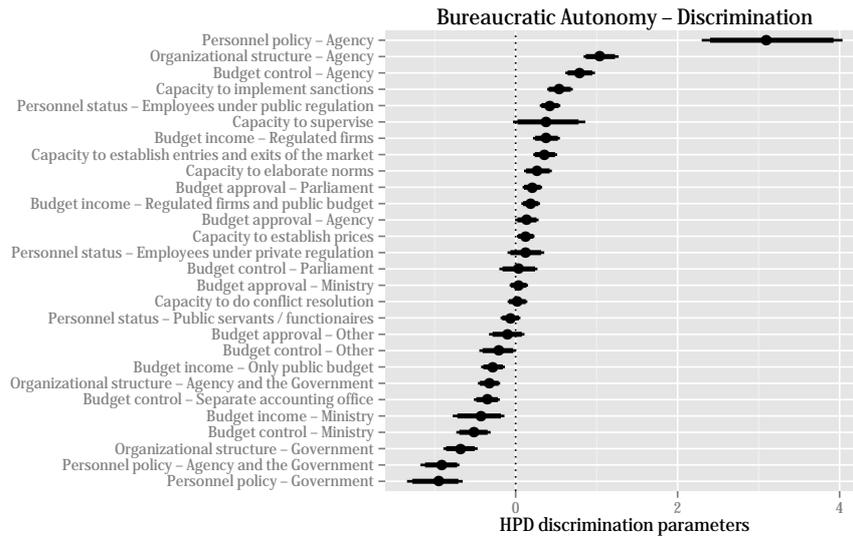


Figure 8: Discrimination parameters for the dimension “bureaucratic autonomy” which measures the degree of bureaucratic autonomy of the institution.

autonomy over the agency. In general, all administrative traditions show two or three groups of agencies. The Latin American agencies appear to have higher scores in bureaucratic autonomy, indicating that regulatory agencies are weakly integrated within the whole administrative system of these countries. On the other side, East Asian and Post-colonial agencies tend to have weaker bureaucratic autonomy, which implies a strong connection with the horizontal administrative structures within the executive.

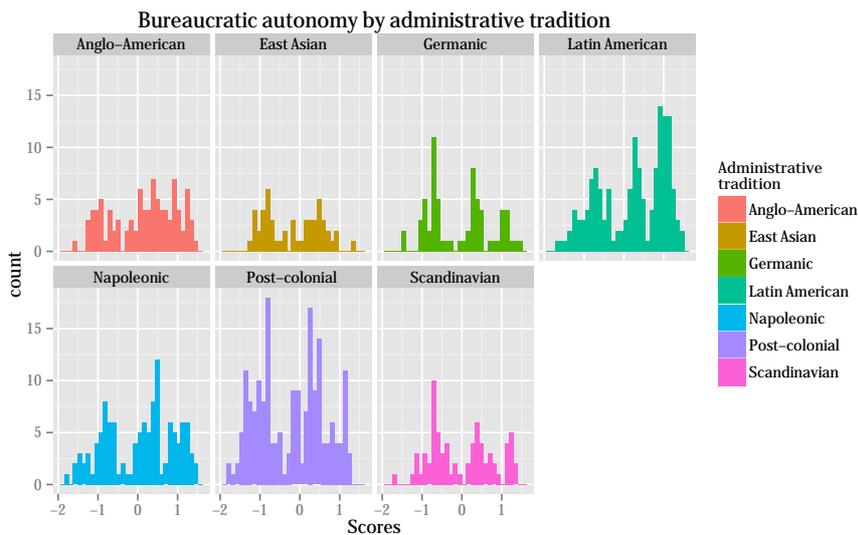


Figure 9: Distribution of the scores of the bureaucratic autonomy by administrative tradition.

#### 4.4 Formal Assessment of Differences by Administrative Traditions

As explained in Section 3.6 and formalized in Equation (1), a comparison of the means of the scores by administrative tradition must allow us to assess whether administrative traditions have differentiated models of societal involvement, political autonomy and bureaucratic autonomy. Figure 10 presents the credible intervals (credible intervals or highest posterior densities are the Bayesian equivalent to frequentist confidence intervals) of the means of the scores by administrative traditions and dimension. Thick and thin lines include 95 and 90 percent of the posterior densities, respectively.

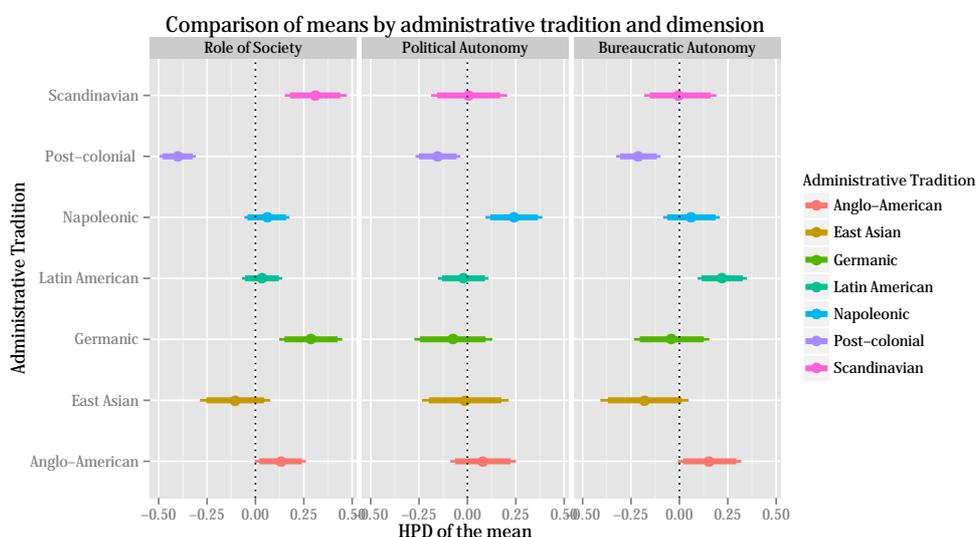


Figure 10: Comparison of means for the scores of each dimension ( $d$ ) by administrative tradition ( $t$ ). Thick and thin lines represent 95 and 90 percent highest posterior densities of the  $\theta_{dt}$  parameters of interest.

The figure formally reinforces the differences found and reported before: Scandinavian agencies have strong societal involvement; Post-colonial agencies are strongly differentiated from the means, by being weak in the three dimensions; Napoleonic agencies are substantially stronger in political autonomy; Latin American agencies have strong bureaucratic autonomy; agencies that belong to countries with Germanic tradition have strong societal involvement; East Asian agencies do not differ in any dimension with respect to the mean; finally Anglo-American agencies are strong in societal involvement and bureaucratic autonomy, although in the limit.

## 5. Discussion and Conclusions

In the previous pages, we have presented our new database on the characteristics of regulatory agencies as they were organized in the year 2010, for 16 sectors and 115 countries in the world. The database includes many different items as to the institutional and organizational characteristics of the agencies, which would allow us to develop precise analyses of some relevant topics on regulatory institutions more in advance. However, in this paper we aimed to introduce the database characteristics and to complement it with a very general view regarding how different regulatory agencies over the world are, if they are really different.

To this aim, we included a short discussion on the diversity of administrative traditions in the world. We presented the hypothesis on the extent to which these traditions shaped the establishment of regulatory agencies in different areas in the world, transforming them into new administrative bodies that were aligned with the main traits of each administrative tradition for the different countries adopting them, according to the traditions these countries belonged to.

Our results, albeit still provisional, are quite relevant for the study of regulatory agencies and the analysis of administrative models and public institutions more in general. We find a large numbers of formal institutional and organizational differences across the agencies in countries belonging to diverse administrative traditions, but we also find that some differences are more pronounced than others are. We also see that the dispersion of characteristics within each tradition cluster is quite large - there are many almost flat lines - probably suggesting that other sources of variation might also be important. In a further work step, we intend to explore in detail sectors as alternative source of variation, in opposition to the country dimension (cluster traditions) explored here.

The distinctiveness of some administrative traditions is quite visible, as for example in the case of Post-colonial tradition, having weak societal involvement, political autonomy and bureaucratic autonomy. The Scandinavian and German traditions are also clearly

defined by having large societal involvement. Another well-delineated case is the Latin American tradition, having strong bureaucratic autonomy, and medium political autonomy and societal involvement. The Napoleonic tradition is shaped by a strong political autonomy of the agency. The Anglo-American tradition has high societal involvement and bureaucratic autonomy.

While differences in the political autonomy variable across administrative traditions are quite small differences for social involvement and bureaucratic autonomy are much larger, showing us a very informative map of multiple combinations that may clearly identify the traits of different administrative traditions in the characteristics of regulatory agencies in different countries. In addition, the differential intensities emerging for each administrative tradition, particularly for the bureaucratic autonomy and the societal involvement variables, bear good resemblance to the expected characteristics of each administrative tradition as identified in the literature. At this stage, though we cannot confirm, we suspect that a different source of variation (i.e, the specific sector) is strongly affecting the political autonomy dimension, probably more than the other two dimensions.

More fine-grained analysis is required, but the results up so far show that administrative traditions still matter largely in shaping public institutions and organizations in different countries in the world, as illustrated by the countries' adaptations of regulatory agencies diffused during the last two decades over the world as they were integrated into their administrative systems. However, it is also important to admit that some particular characteristics spread over the world in a more autonomous manner regarding existing administrative traditions, and shape the institutional nature of regulatory agencies without being digested by previous traditions in each country. This is especially evident when looking into characteristics related to the formal rules for political autonomy of agencies, strongly identified with the "agency independence" issue. The diffusion of institutional rules to formally protect agencies' responsibilities from political autonomy and intervention has been extremely successful during the last two decades. Still, this has not run parallel to the emulation of a complete institutional design for the agencies. As we have

illustrated, multiple details of their design were clearly shaped by specific administrative traditions. It is still to be explained to what extent the mix of global emulation and local adaptations has created new institutional problems for different administrative systems, and whether this has reassess some ancient administrative traditions.

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## Appendix

### A. Selected Countries and Administrative Traditions

Based on Painter and Peters (2010*b,a*).

*Table 1: Country and administrative tradition*

Country	Administrative tradition
United Kingdom	Anglo-American
Austria	Germanic
Brazil	Latin American
Portugal	Napoleonic
Australia	Anglo-American
Norway	Scandinavian
Sweden	Scandinavian
Argentina	Latin American
Mexico	Latin American
China	East Asian
Denmark	Scandinavian
Lithuania	Scandinavian
Italy	Napoleonic
Slovenia	Napoleonic
Romania	Napoleonic
India	Post-colonial
Dominican Republic	Latin American
Venezuela, Bolivarian Republic of	Latin American
Ireland	Anglo-American
France	Napoleonic
Colombia	Latin American
Switzerland	Germanic
Slovakia	Germanic
Netherlands	Germanic
Bulgaria	Napoleonic
Spain	Napoleonic
Finland	Scandinavian

Country	Administrative tradition
United States	Anglo-American
Peru	Latin American
New Zealand	Anglo-American
Greece	Napoleonic
Czech Republic	Germanic
Hong Kong	Anglo-American
Bolivia, Plurinational State of	Latin American
Germany	Germanic
Iceland	Scandinavian
Malta	Anglo-American
Canada	Anglo-American
Latvia	Scandinavian
Uganda	Post-colonial
South Africa	Anglo-American
Russian Federation	Napoleonic
Chile	Latin American
Japan	East Asian
Hungary	Germanic
Philippines	Anglo-American
Pakistan	Post-colonial
Kenya	Post-colonial
Zambia	Post-colonial
Egypt	Post-colonial
Panama	Latin American
Ethiopia	Post-colonial
Korea, Republic of	East Asian
El Salvador	Latin American
Turkey	Napoleonic
Belgium	Napoleonic
Poland	Napoleonic
Ghana	Post-colonial
Luxembourg	Germanic
Estonia	Scandinavian
Costa Rica	Latin American
Malaysia	East Asian
Ecuador	Latin American

Country	Administrative tradition
Tanzania, United Republic of	Post-colonial
Indonesia	East Asian
Thailand	East Asian
Bangladesh	Post-colonial
Nicaragua	Latin American
Mozambique	Post-colonial
Sri Lanka	Post-colonial
Cuba	Latin American
Honduras	Latin American
Cyprus	Napoleonic
Nigeria	Post-colonial
Oman	Post-colonial
Algeria	Post-colonial
Bahrain	Post-colonial
Paraguay	Latin American
Malawi	Post-colonial
Guatemala	Latin American
Tunisia	Post-colonial
Saudi Arabia	Post-colonial
Uruguay	Latin American
Viet Nam	Post-colonial
Zimbabwe	Post-colonial
Taiwan, Province of China	East Asian
Morocco	Post-colonial
United Arab Emirates	Post-colonial
Iraq	Post-colonial
Kazakhstan	Napoleonic
Ukraine	Napoleonic
Uzbekistan	Napoleonic
Singapore	Anglo-American
Mali	Post-colonial
Iran, Islamic Republic of	Post-colonial
Afghanistan	Post-colonial
Rwanda	Post-colonial
Jordan	Post-colonial
Brunei Darussalam	East Asian

Country	Administrative tradition
Senegal	Post-colonial
Lebanon	Post-colonial
Angola	Post-colonial
Nepal	Post-colonial
Haiti	Latin American
Libyan Arab Jamahiriya	Post-colonial
Syrian Arab Republic	Post-colonial
Yemen	Post-colonial
Somalia	Post-colonial
Qatar	Post-colonial
Congo, the Democratic Republic of the	Post-colonial
Sudan	Post-colonial
Chad	Post-colonial
Azerbaijan	Napoleonic
Kuwait	Post-colonial
Myanmar	East Asian
Madagascar	Post-colonial
Côte d'Ivoire	Post-colonial
Moldova, Republic of	Napoleonic
Niger	Post-colonial
Israel	Post-colonial
Cambodia	East Asian
Cameroon	Post-colonial
Burkina Faso	Post-colonial
Korea, Democratic People's Republic of	East Asian
Lao People's Democratic Republic	East Asian

## B. List of Questions/Items in the Database

- Year of legal creation
- Operative on December 31st, 2010
- Current legal instrument
- Legal form; original language
- Legal form - English
- Agency head term of office (in years)
- Agency head appointment
- Agency head dismissal
- Agency head renewal (it only applies to cases where the term of office is established)

- Agency head professional requirement for appointment
- Agency board composition (number of members)
- Agency board attributions
- Agency board term of office (in years)
- Agency board appointment
- Agency board dismissal
- Agency board renewal (it only applies to cases where the term of office is established)
- Agency board professional requirement for appointment
- Final regulatory decision
- Budget distribution (who elaborates the proposal )
- Personnel policy
- Internal distribution of responsibilities among board members
- Agency head is responsible for the internal distribution of responsibilities among board members
- Civil society accountability
- Accountable to the ministry
- Accountable to the executive
- Accountable to the parliament
- Organizational structure
- Personnel (number of employees, year 2010)
- Personnel policy (wages, promotions, incentives)
- Personnel status
- Budget (millions of Euros, year 2010)
- Budget income
- Budget approval
- Budget control
- Regulatory competences in the sector

- Capacity to implement sanctions
- Capacity to supervise (control, inspection, surveillance)
- Capacity to do research
- Capacity to elaborate norms - Elaboration of own statutory norms
- Capacity to do conflict resolution
- Capacity to establish prices (tariffs, prices)
- Capacity to establish entries and exits of the market (capacity to regulate entries and exits of the market, absorptions, mergers)
- Legal status of agency regulatory decisions (who revises agency decisions)
- Choice of policy instruments
- Agency and regulated actors relationships
- Sector/s
- Country/s