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# The social relation to the environment in contemporary capitalism: theoretical reflections and empirical explorations

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# The social relation to the environment in contemporary capitalism: theoretical reflections and empirical explorations

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## Abstract

This paper analyses the socio-economic context into which environmental policies and ecological sentiments emerge through empirically studying the relation to the environment of different kinds of capitalism. The association and interaction of the relation to the environment with other key social relations, e.g. the labour-capital relations, are studied and discussed. To achieve this, I draw from Regulation Theory and augment its analytical framework with an explicit environmental dimension. I then conduct an empirical analysis of the diversity of contemporary capitalism including the social relation to the environment for a sample of thirty-seven OECD and BRICS countries. Five kinds of capitalism are identified: the Northern-continental European, the Southern-central European, the Anglo-Saxon and Pacific, the Emerging Countries and the Two Giants. A main result is the correspondence between ecology-prone social relations to the environment, labour oriented capital-labour relations and welfare-oriented states. However, the results show that countries that are the most ecology-prone are also the ones that have the most relocated their environmental impact, an observation consistent with the critical literature on the Environmental Kuznets Curve.

*Keywords:* Society-environment relation; Capitalism; Mode of regulation; Institution; Environmental policy; Ecological macroeconomics

*JEL codes:* E02; P16; P18; P51; Q56; Q58

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# 1 Introduction

Recent political developments in countries such as the United States and Brazil indicate how important it is to consider ecological issues and environmental policies in relation to the surrounding socio-economic contexts into which society-environment relations emerge. The necessity to consider these contexts has been underlined by several authors in Ecological Economics (EE). Buch-Hansen (2014), for example, emphasizes the importance of considering the diversity of capitalist systems and institutional change to analyse sustainable trajectories. Similarly, Chester (2010) insists that environmental issues are embedded within capitalism. She contends that environment-economy relations should be comprehended in this context. Rezai and Stagl (2016) further argue that considering societal institutions and power relations is central to an ecological transition. However, Ozkaynak et al. (2012) identify a lack of consideration in EE for the political and socio-economic contexts into which ecological economic policies are decided and implemented. Institutional approaches are relevant to comprehend society-environment relations together with other socio-economic dynamics (Douai and Montalban, 2012). Although institutionalism is well represented in EE (Paavola and Adger, 2005; Vatn, 2005, 2017), the emerging field of ecological macroeconomics has yet to add an institutionalist perspective to its modelling approach (Rezai and Stagl, 2016; Hardt and O'Neill, 2017; Svartzman et al., 2019). In this paper, I attempt at partly filling these empirical and theoretical gaps. I discuss an institutionalist theoretical framework relevant to comprehend socio-economic contexts encompassing the society-environment relation and I empirically study the relation to the environment of different kinds of capitalism. I further analyse how the relation to the environment is associated and interacts with other key social relations, e.g. the labour-capital relations. This paper therefore sheds light on the socio-economic conditions of (un)ambitious environmental policies and (anti-)ecological sentiments.

To achieve this, I draw from Regulation theory (RT), which provides an analytical framework of the historical and spatial diversity of capitalist systems. RT is an institutionalist approach to economics. It appeared in the 1970s during the crisis of Fordism, the so-called Golden Age of capitalism in high income countries that lasted from the early 1950s to the mid-1970s. RT then developed into a theory of capital accumulation dynamics and crises. The central assumption is that capitalism is not a self-equilibrating system. It needs to be regulated by a set of institutions that will ensure its coherent reproduction (Petit, 1999). However, RT has neglected environmental issues for a long time. A key reason for this is that the productivity gains that shaped the fordist social compromise in high income countries started to decrease *before* the 1970s energy crisis. This steered reluctance from regulationists to consider energy as a cause of the end of Fordism and of the gradual shift to Neoliberalism (Chester, 2010; Lipietz, 2002). It entailed blindness to what Becker and Raza (2000) name the *ecological constraint*, that is to the constraining factor the environment constitutes for capitalist production. Amidst the few regulationist works considering the environment, theoretical attempts at linking RT with EE were undertaken by Zuindeau (2007) and Douai and Montalban (2012). Only a couple of works

offer empirical analyses of the spatial and historical diversity of capitalism in relation to environmental issues, focusing on climate change, models of environmental policies and the social relation to energy (Koch, 2011; Elie et al., 2012; Cahen-Fourot and Durand, 2016). Despite these works, the theoretical status of environmental issues in RT is not yet clear as I will explain later. It is therefore necessary to first discuss the integration of an environmental dimension in RT to clarify the theoretical framework that structures the empirical study.

First, I tackle the debate regarding the social relation to the environment in RT. I recall the main positions and contend that the debate is not well formulated: the status given to the environment in RT should not be viewed in a polarized manner but should rather be replaced in the historical evolution of the ecological constraint. Such a historical stance allows to argue in favour of an explicit environmental dimension that has been lacking until now in this approach. This discussion provides the framework that I then use as a basis for the empirical analysis.

Second, by the means of principal components analysis, multiple correspondences analysis and clustering applied to 2015 data for thirty-seven OECD and BRICS countries, I study the diversity of contemporary capitalism including the social relation to the environment. I identify five kinds of capitalism with diverse relations to the environment, ranging from ecology-prone to ecology-adverse. A main result is the correspondence between ecology-prone social relations to the environment, labour oriented capital-labour relations and welfare-oriented states.

This paper therefore contributes to both RT and EE in two main ways: First, it advances the debate regarding the integration of the environment in the RT analytical apparatus. It adapts the latter to tackle key twenty-first century issues that are likely to shape the future of capitalism and possible other economic systems. Furthermore, it provides EE with a framework to deepen the study of environmental policies within their socio-economic contexts. Second, to the best of my knowledge, it provides the first study of the diversity of capitalism that integrates together an environmental dimension with the other social relations usually considered in RT. It therefore contributes to the understanding of modern capitalisms' relation to the environment and tends towards an integrated analysis of environmental and socio-economic dynamics. This fits with EE pre-analytic vision of the society as embedded in the environment.

I first introduce the main concepts of RT in section 2. I then briefly survey the debate on the society-environment relation in RT in section 3.1 and argue for integrating an explicit environmental dimension in section 3.2. In section 4, I introduce the statistical methods and the data used for the empirical analysis. The results are presented in section 5 and discussed in section 6.

## 2 Institutional forms and mode of regulation

I use two key concepts of RT: the institutional forms and the mode of regulation. The institutional forms codify the fundamental social relations that shape a given kind of capitalism. They regulate capitalism: They stabilize and normalize social conflicts and power struggles amongst

antagonistic social groups or classes. They embody political compromises between them and ensure the reproducibility of the system until the next major crisis (Görg and Brand, 2000; Boyer and Saillard, 2002a). Institutionalised compromises therefore produce a kind of capitalism through their combination as the mode of *regulation*. The mode of *regulation* is the specific configuration of individual and collective behaviours codified in the institutional forms observed at a given period/place. It ensures the coordination and compatibility of decentralized decisions from actors only partially comprehending the adjustment principles of the whole system (Boyer and Saillard, 2002b).

There are five institutional forms. First, the monetary regime is the confidence-based relation allowing decentralized agents to settle debt, to enter and participate in market exchanges and to link market and non-market productions (Guttmann, 2002; Aglietta, 2002; Théret, 1998). Second, the wage-labour nexus is the "the set of legal and institutional conditions that govern the use of wage-earning labour as the workers' mode of existence" (Boyer, 2002, p. 74). It encompasses the means of production used, the employment relations between the workers and the firm, the wage determinants and the access of the labour force to commodities and non-market services ensuring its reproduction (Petit, 1999; Boyer and Saillard, 2002a; Aglietta, 2002). The third is the form of competition, which relates to the set of market and value chains rules. It is all the conventions and mediations shaping business relations amongst producers. Fourth, the form of the state is the set of institutionalised compromises shaping the state's intervention and importance in the economy and society. The fifth is the insertion into the international regime: The set of rules organising the cohabitation of nation-states and currencies within the global socio-political system, international trade and capital flows networks (Petit, 1999). As we can see, the environmental dimension is completely absent from the RT framework.

### 3 Integrating the environment into Regulation theory

The relation to the environment is not specific to capitalism: any kind of society has a relation to the environment. In capitalism, the relation to the environment takes a peculiar form as nature is commodified and treated as a form of capital (Becker and Raza, 2000; Brand and Görg, 2008). However, the relation to the environment is not uniform: It is shaped by power balances that can shift between times and places. Stated otherwise, a specific form of the social relation to the environment within capitalism is defined and shaped by the mode of regulation (Chester, 2010; Zuindeau, 2007). Hence arises the question whether this relation is an institutional form in itself or if it is encompassed into the five other forms.

#### 3.1 The social relation to the environment: encompassed *versus* autonomous

Historically, regulationist economists denied the existence of an institutional form codifying the social relation to the environment. Chester (2010) argues that each of the five institutional

forms determines the social relation to the environment, individually and collectively through the mode of regulation. Similarly, Douai and Montalban (2012) consider that the relation to the environment is governed by all the fundamental social relations of capitalism and cannot, therefore, be reduced to a specific institutional form. The social relation to the environment would only be the projection on the space of the society-environment relations of the five institutional forms (Boyer, 2015). A main reason for this line of argument is that no compromise with the environment would be possible but only amongst humans. Thus, no institutionalised compromise could arise that is similar to the social relations codified by the usual five forms (Lipietz, 2002).

To the contrary, some authors argue in favour of a social relation to the environment autonomous from the five other forms. According to Becker and Raza (2000)

"this sixth structural form regulates access to, and utilization of, the material world both for productive and reproductive activities. Hence, it also regulates the spatial and temporal distribution of the ecological costs and benefits of these (re-)productive activities." (p. 11)

Cahen-Fourot and Durand (2016) further argue that this form encompasses both the formal and non-formal socio-technical, cultural and legal elements of the relation to the environment. It supports and is the product of socio-political conflicts around ecological issues between various political and socio-economic bodies. It can alter existing regulations and create new ones with the potential of changing the prevailing course of capital accumulation. It cannot, therefore, be reduced to the other forms.

Moreover, the impossibility of a compromise with the environment can be questioned. Environmental philosophers have shown the possibility of a *diplomatic* cohabitation with nature made of compromises with the wild, e.g. the wolf (Morizot, 2016, 2017). Legal rights given to rivers and forests or rules forbidding constructions for environmental reasons are further examples of compromises between society and nature. There is nonetheless an ontological difference between the compromises usually understood in RT and direct society-environment compromises: The former are socio-economic compromises mediated in political ways; the latter are of a more practical nature. Humans compromise *with* the environment in practical ways. They compromise amongst themselves *about* ecological issues in political ways. The two types of compromise are different yet complementary: Practical compromises with the environment require political compromises between antagonistic interests on ecological issues. Conversely, no political compromise is disembedded from the environment: It is unlikely that people from small Pacific Islands will reach institutionalised compromises under water.

Given these nuances, I will argue that these two polarized positions are not mutually exclusive and should rather be historicized in light of the ecological constraint. Of course, each one of the five traditional institutional forms of RT is likely to influence the society-environment relations. Their respective effects are not clear-cut and, as argued by Chester (2010), the combination of all these effects will produce a distinct interaction pattern between the mode of regulation as a

whole and the environment. Yet, the social relation to the environment may also experience an institutionalisation process that makes it autonomous from the five institutional forms.

### **3.2 Historicity beyond binarity: The institutionalisation of the social relation to the environment as a regulation of capitalism**

As Petit (1999) explains, other social relations progressively turned into institutional forms in the past. After World War II, public intervention gained credibility and the dominance of the market was questioned. The monetary regime and international relations were clarified. So was public intervention, through Keynesian thought and policies, that crystallized in Europe around the institutionalisation of the wage-labour nexus. The latter became an institutional form in itself and gained prominence over the others. Thus, before the wage-labour nexus institutionalisation, the organization of work could be thought as the projection of the pre-existing four institutional forms on the space of the capital-labour relations.

I contend that the social relation to the environment is experiencing a similar process. As the ecological constraint becomes more acute, existing institutions become progressively unable to normalize increasing ecological conflicts and to embody satisfying compromises regarding the access to and the distribution of environmental cost and benefits (Douai and Montalban, 2012). Several social changes and related discourses emerged in the 1960s and 1970s that were key in paving the way for a new perception of the ecological constraint, especially "the new conceptualization of pollution and environment that became part of the general public awareness (...), the dramatic increase in world population and the question of the sufficiency of food and other resources (...) and the discourse on energy" that accompanied the discussion on resources and became central from 1973 onwards (Røpke, 2004, p. 298). Quite ironically, major oil companies helped create the environment as a political object. In 1971, facing pressures from governments in the Middle East to share an increasing part of their profits, they needed to legitimize a steep rise in prices. They shifted from the idea of abundance that prevailed to a vision in terms of finite resources. The scarcity vision that emerged made it clear that societies should care about their resources and environment (Mitchell, 2009, 2013). New philosophical developments accompanied the rising politicization of ecological issues. Jonas' (1979) inverted the responsibility principle. Instead of being responsible for the consequence of an action, societies were then responsible by anticipation of a being or an object that we must take care of in the long run (Larrère and Larrère, 2009).

These political and philosophical evolutions laid the ground for a new social relation to the environment, historically located and determined by the ecological constraint. Social blocs (Amable and Palombarini, 2008) supporting new compromises regarding environmental issues could start to emerge. Considering this historical process clarifies that the social relation to the environment is not *fully* embedded into the five institutional forms and is not *only* the projection of the latter on the space of the society-environment relation anymore. It becomes an institutional form in itself and, as such, is increasingly shaping the modes of regulation in

combination with the other forms. In the empirical part, I then study the diversity of capitalism through the modes of regulation with six institutional forms, including the social relation to the environment.

## 4 Empirical strategy: methods and data

The empirical part builds on the discussion above and is inspired mainly by Amable (2003) and also by Elie et al. (2012) and Jahn (2014). Amable studies the diversity of modern capitalism in a sample of twenty-one OECD countries. He finds five kinds of capitalism: The social-democrat, the continental European, the Mediterranean, the liberal market and the Asian. Elie et al. (2012) investigate whether Amable's typology translates into environmental policy. They identify four models of environmental regulation: liberal, weak intensity, strong socialization of environmental issues and mixed liberal/socialized. Rooted in comparative politics, Jahn (2014) identifies three worlds of environmental politics in a similar sample of twenty-one OECD countries: high environmental performance-environmental policy regime, high environmental performance-productionist policy regime and low environmental performance-productionist regime. Here I take an integrating stance in embedding the social relation to the environment into the study of the diversity of capitalism.

Amable bases his analysis on five institutional domains: the labour market, the products market, social protection, education and the financial system. Since the theoretical discussion here is about the institutional forms regulating capitalism, I locate the analysis at a slightly different level: the mode of regulation. Stated otherwise, Amable characterizes the diversity of modern capitalism based on institutional domains while I do based on institutional forms. Of course, both partly overlap: The form of competition and the wage-labour nexus are akin to the products and labour markets, and the form of the state encompasses education and social security. I follow Amable regarding the choice of many underlying variables although I delve much less into details regarding peculiar domains (e.g. education or social protection). In the following sections I present the statistical methods used to conduct the analysis and the data chosen to model each of the institutional forms.

### 4.1 Principal components analysis, multiple correspondences analysis and clustering

Similarly to the three studies above, the statistical techniques used in this analysis are principal components analysis (PCA), multiple correspondences analysis (MCA) and clustering. PCA and MCA are methods allowing to synthesize large datasets into fewer, synthetic dimensions (the principal components) — respectively applying to quantitative and qualitative variables. Each component is a linear combination of the raw variables and is orthogonal to the others: It synthesizes a decreasing yet supplementary part of the total inertia (variance) of the raw data (Le Roux and Rouanet, 2005; Vyas and Kumaranayake, 2006). As preparatory steps to

clustering, PCA and MCA allow to remove the noise from the data to keep only relevant information and make the former more meaningful and stable (Husson et al., 2010). The selected components are those carrying a statistically significant information. These components carry an inertia greater than those obtained by the 0.90- or 0.95-quantile of normal (PCA) and random (MCA) distributions<sup>1</sup>. Clustering allows for classifying countries characterized by quantitative and qualitative variables. I use a mixed hierarchical-consolidated clustering method applied to the components selected through the PCA/MCA. The hierarchical clustering identifies clusters of countries based on their distance on a Euclidean space: The closer two countries, the more similar they are. It minimizes the *growth* of the intra-cluster inertia while minimizing the *reduction* of the between-cluster inertia. The partition obtained is then used as the initial number of clusters for the consolidating  $k$ -means algorithm, which improves the homogeneity of each cluster (Husson et al., 2017). Choosing the number of clusters is not an exact science and I follow a combination of criterion: the number suggested by the algorithm, the inertia gain to add one more cluster, the length of the links on the hierarchical tree and the meaningfulness of the clusters (Husson et al., 2010). Following Elie et al. (2012), I first construct synthetic qualitative variables using PCA and clustering. They represent each institutional form, based on their respective underlying variables approximating the social relation they codify. Since a cluster can be identified to a categorical variable (Husson et al., 2017), the clusters become the modalities of the institutional forms. They illustrate the diversity of the latter in the sample. This also eliminates the bias of axes over-determination in the final analysis by the institutional forms modelled with more variables than others (Elie et al., 2012). I then apply MCA and clustering to these qualitative variables to obtain the modes of regulation. Figure 1 sums up the empirical strategy<sup>2</sup>.

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<sup>1</sup>When the significant information amounted for less than 50% or when only the first axis was found to carry significant information, I kept more axes.

<sup>2</sup>See sections 2 to 12 of the appendix for the details on data and sources and detailed results of all the intermediate analyses.

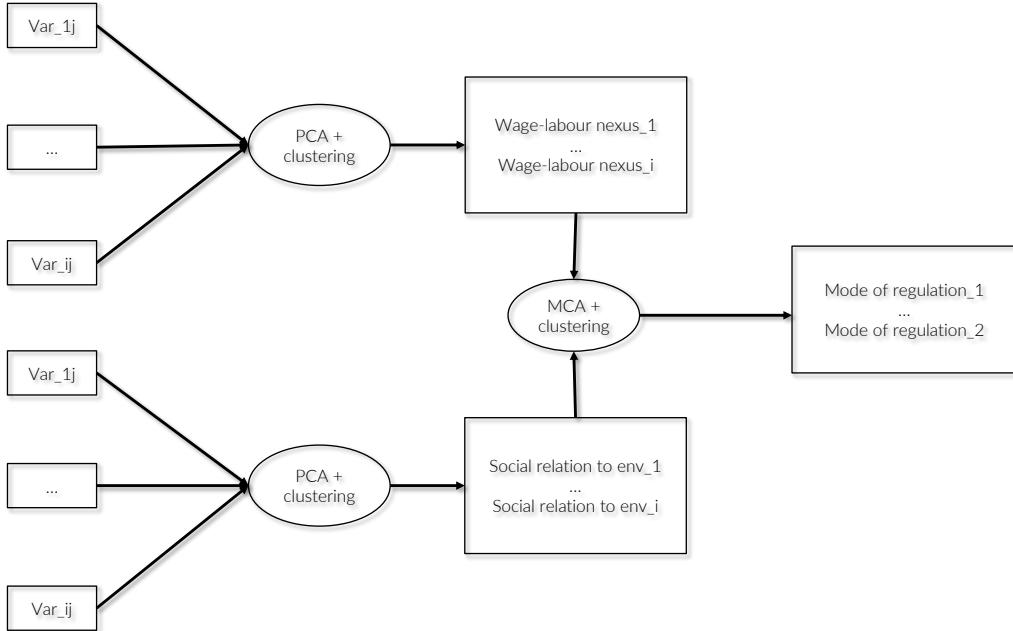


Figure 1: Empirical strategy from the modelling of institutional forms into qualitative synthetic variables based on quantitative raw variables to the typology of the modes of regulation.  $j$  indicates the countries.

Table 1 indicates the modalities obtained for each of the institutional forms. It is important to stress that modelling the codification of key social relations into institutional forms is a tricky exercise and is incomplete in essence. The raw variables chosen to capture the social relations can be discussed at length and are certainly not exhaustive. They were selected following the theory and the literature. A rather parsimonious approach was opted for in the trade-off between completeness and meaningfulness to facilitate the interpretation of the results. In all but one case, data are for 2015 or the most recent year before<sup>3</sup>. In very few cases where data were simply missing, I used variables that are very similar or I imputed them statistically.

Variables and the modalities of the institutional forms are described and commented upon in the subsections below. One should bear in mind that the results are relative to the whole sample, e.g. a country that has an ecology-oriented social relation to the environment may not be very ecology-oriented with regards to other referentials, e.g. the most climate-friendly IPCC scenario of emissions mitigation.

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<sup>3</sup>The environmental treaties ratifications are as of 2016.

Institutional form	Modality	
Social relation to the environment	Materially onshore, most unequal distribution of environmental amenities and benefits and ecology-adverse political orientation	1
	Ecology-adverse socio-political orientation	2
	Ecology-prone socio-political orientation and materially onshore for energy and GHG	3
	Materially offshore	4
	Materially offshore, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation	5
	Financial openness with strong preference for liquidity and strict prudential regulation	1
Monetary regime	Intensive activism of the central bank	2
	Low interest and inflation, weak preference for liquidity and loose prudential regulation	3
	Financial closeness with high interest and inflation, weak preference for liquidity and loose prudential regulation	4
	Financial closeness with high interest and inflation and strong preference for liquidity	5
Wage-labour nexus	Labour protective, wage-oriented value added distribution, low working time and low income inequality	1
	Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality	2
	Profit-oriented value added distribution, high unemployment and low income inequality	3
	Oriented towards profit re-investment rather than distribution, high working time and high income inequality	4
	Labour market flexibility, capital-oriented value added distribution, high working time and high income inequality	5
Forms of competition	Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises	1
	Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises	2
	Weak competition and closeness to foreign suppliers but strong competition in the postal sector and strong communication and simplification of rules and procedures	3
	Weak competition and closeness to foreign suppliers but strong competition in banking	4
	Weak competition, closeness to foreign suppliers, strong government control but strong competition in the telecom sector	5
Forms of the state	Sovereign and economic control-oriented	1
	Economic control- and partially welfare-oriented	2
	Sovereign, partially welfare-oriented and smaller overall size	3
	Weakly welfare oriented	4
	Partially welfare-oriented and smaller overall size	5
	Strongly welfare-oriented and bigger overall size	6
Insertion into the international regime	Through agriculture and secondary sectors and a weak integration into non-political globalizations	1
	Through a weak integration into all dimensions of globalization	2
	Through extractive and energy sector	3
	Through manufacturing sector and trade globalization	4
	Through services sectors and political globalization	5
	Through FIRE services and a weak integration into political globalization	6
	Through non-FIRE services and a strong integration into all dimensions of globalization	7

Table 1: The six institutional forms and their modalities in contemporary capitalism.

## 4.2 The social relation to the environment

Accordingly to its definition, the social relation to the environment is modelled to represent both its material and socio-political aspects. The material dimension is captured through the GDP intensity in greenhouse gases (GHG), energy and materials, and through the share of net imports of embodied CO<sub>2</sub>, energy and materials in their total consumption using Eora data (Lenzen et al., 2012, 2013). These latter variables give an indication of the relative location of each countries in global GHG emissions, energy and materials chains and of their ecological footprint.

Socio-political aspects are represented using six variables: The class structure of emissions (9th to 1st income deciles emissions ratio computed from Chancel and Piketty (2015) data); environmental conflicts (Temper et al., 2015); stringency of environmental regulation, enforcement of environmental regulation and ratifications of environmental treaties (World Economic Forum); and the number of Greenpeace financial supporters and of International Union for Conservation of Nature (IUCN) organizations. These variables aim at representing the unequal and conflictual dimensions as well as different kinds of environmentalism and degrees of social demand for environmental policies.

As indicated in table 1, I obtain five kinds of social relation to the environment, ranging from the least to the most ecology-oriented one. Unsurprisingly, the intensity of economic activity in natural resources seems prominent in shaping the socio-political orientation towards ecological issues: the more onshore the utilization of materials, energy and GHG, the less ecology-oriented the social relation to the environment. The sample nonetheless provides nuances to this general observation: the third kind of social relation to the environment is more ecology-oriented than the fourth one despite being more locally intensive in energy and GHG. The latter is characterized by an offshore materiality as its countries are the biggest importers of embodied energy and materials and big importers of embodied GHG. However, none of the variables capturing the socio-political aspects are statistically different from the sample average. If looked at nonetheless, they indicate in particular a higher number of environmental conflicts but a looser environmental regulation. This can indicate that new compromises regarding the environment are not yet institutionalized (see table A5 in the appendix).

### 4.3 The monetary regime

Guttmann (2002) defines a monetary regime as the combination of monetary policy (e.g. the interest rate), financial regulation, lender of last resort mechanisms and capital flows regulation. Accordingly, I use the short term interest rate set up by the central bank, the bank regulatory capital to risk-weighted assets ratio, the central bank assets to GDP ratio and the Chinn-Itoh index of capital account openness (Chinn and Ito, 2006). However, as explained in section 2, RT comprehends money as a social relation but the variables above merely represent its technical and regulatory aspects. To capture partly the former, I add the inflation rate and the percentage of liquid assets to deposits and short term funding to reflect the confidence (or lack of) in money and the preference for liquidity.

The analysis indicates five kinds of monetary regimes, in particular distinguished by their financial openness and preference for liquidity. Regimes with constrained capital flows have higher inflation rates than those with freer capital flows. A higher preference for liquidity goes most of the time with a stricter prudential regulation (with the exception of cluster 5) (see tables A9 and A10).

#### **4.4 The wage-labour nexus**

Drawing from the definition in section 2, the wage-labour nexus is modelled using employment protection, the rates of collective bargaining coverage and union density and the weekly working hours to capture the employment relationship between workers and firms. The adjusted wage share, the share of distributed profit and the rate of unemployment aims at capturing the relative bargaining power between labour and capital and the access of the labour force to the means of its reproduction. Income inequality and the gender wage gap are included to represent the wage segmentation of the labour market.

Here again five kinds of wage-labour nexus appear, from the most to the least labour-protective one. An interesting observation is that, amongst all samples, the only association that holds in every case is between the rate of unemployment and the share of distributed profit. The two variables exhibit a systematic positive correlation, whatever their significance and the significance, sign and absolute value of the other variables (see tables A14 and A15).

#### **4.5 The form of competition**

To model the forms of competition I mainly follow Amable and use the large set of OECD indicators regarding the regulations of the goods and services markets (Koske et al., 2015). Eighteen variables measure the competitive intensity of markets, the kind of regulation that is being used and the degree of involvement of the state. Markets structures are captured by seven variables indicating the degree of competition in telecom, electricity, gas, postal services, rail<sup>4</sup> and banking sectors (see table A16).

As for the previous institutional forms, I obtain five kinds of competition regime with gradual intensities and specificities. Only one exhibit a strong competition in all sectors. Others vary in terms of competition in particular sectors and openness to foreign suppliers. Generally speaking, high-income countries are more competition-oriented although several of them still have strongly regulated sectors. Middle-income countries exhibit in particular a higher degree of closeness to foreign suppliers (see tables A21 and A22).

#### **4.6 The form of the state**

As defined in section 2, the state is modelled using variables capturing two main dimensions: its size and importance in society and the socio-economic compromises embodied in political choices regarding the provision of public services, e.g. whether the state is more or less welfare or sovereign-oriented. Final consumption expenditure of the general government, tax revenues, government health, education and military expenditures in percentage of GDP and an index of state control over the economy represent both dimensions. Health, education and military expenditures in percentage of government expenditures<sup>5</sup> represent the second dimension.

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<sup>4</sup>These variables had to be imputed for Russia.

<sup>5</sup>Education and military expenditures in % of government expenditures had to be imputed for, respectively, China and Russia.

Six kinds of state appear in the whole sample. Their orientation towards welfare services is not correlated to their size: Some states characterized by lower final consumption expenditures, taxes and degree of state control over the economy have a higher percentage of government expenditures going to education and health than states with a bigger overall size. However, the kind of state exhibiting the biggest size is also the most welfare-oriented and the least sovereign-oriented. States with a more sovereign-oriented stance also exert a stricter control over the economy.

#### 4.7 The insertion into the international regime

Last but not least, the insertion of national capitalisms in the international regime is modelled through variables representing economic, financial, cultural and socio-political aspects. Based on NACE categories (Eurostat, 2008) the position in the international division of labour is captured through the shares in value added of agriculture, extractive and energy industries, manufacturing, construction, finance-insurance-real estate (FIRE) and non-FIRE services. Furthermore, I use the KOF globalization indexes of *de jure* and *de facto* trade, financial, social and political globalizations (Dreher, 2006; Gygli et al., 2018) to capture the degree of integration into all dimensions of globalization and the various ways the countries cohabit within the international regime.

I obtain seven kinds of insertion: Some capitalisms are mostly inserted through specific sectors while others exhibit common patterns across all dimensions of globalization. In particular, Emerging countries are inserted in the international regime through a weak integration in all dimensions of globalization.

### 5 Five kinds of capitalism with differing social relations to the environment

This section describes the final results. I run the analysis on the full sample, used as a point of reference. To refine the results and assess their consistency, I also analyse three country-based and two literature-based sub-samples: OECD, European union and non-European union countries; the Amable (2003)/Elie et al. (2012) and the Jahn (2014) samples. For a matter of space and clarity, I focus on a synthetic presentation, highlighting the main kinds of capitalism and the underlying combinations of institutional forms. The composition of the clusters for the full sample and each sub-sample is indicated on figure 2 and table 2. The axes of the factorial plans on figure 2 discriminate countries depending on their modalities for each institutional form and allow to identify the clusters. Table 3 indicates the characteristics of each cluster and how they are differentiated, synthesizing the results of the full sample and the sub-samples analyses.

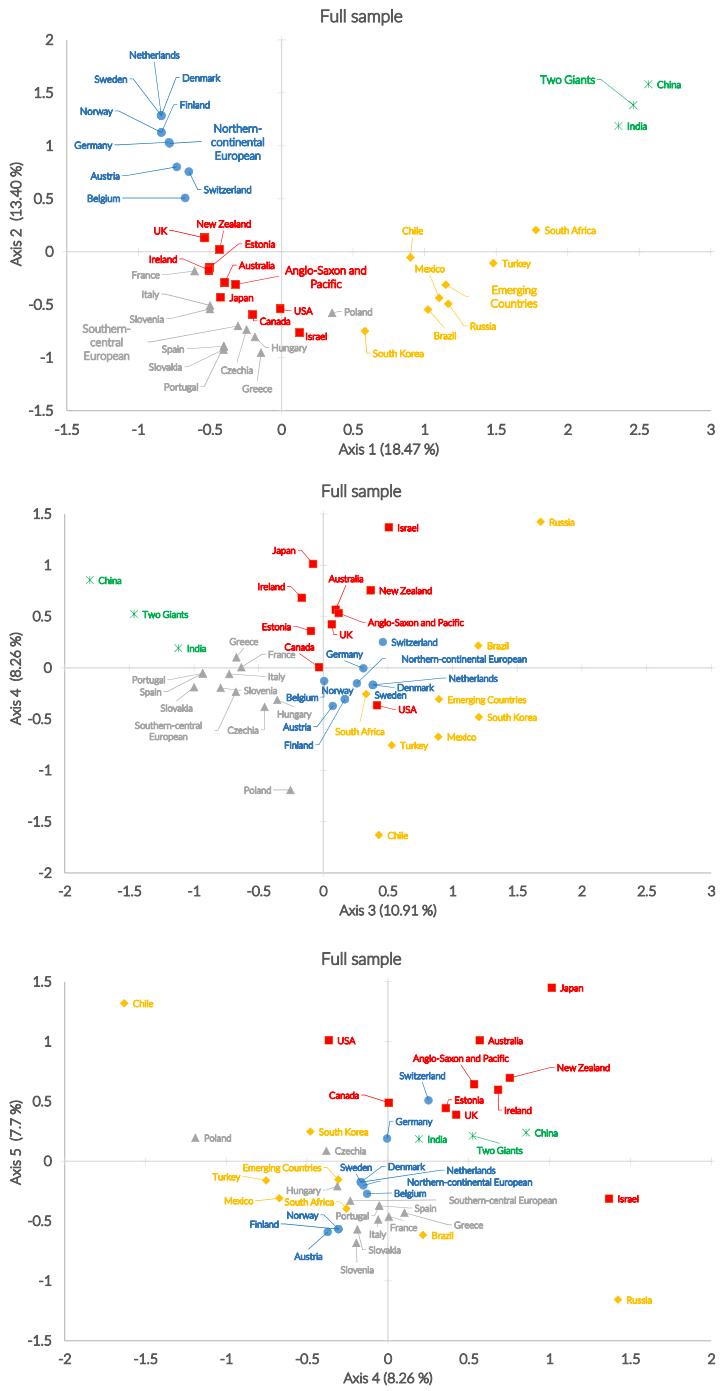


Figure 2: Projections of the clusters on the factorial plans 1:2, 3:4 and 4:5 for the full sample.

Mode of regulation	Full	OECD	EU	Non-EU	Amable/Elie et al.	Jahn
Northern-continental European	Austria, Belgium, Denmark, Finland, Germany, Netherlands, Norway, Sweden, Switzerland	Austria, Belgium, Denmark, Finland, Germany, Netherlands, Sweden, United Kingdom	—	—	Austria, Belgium, Denmark, Finland, Germany, Netherlands, Norway, Sweden, Switzerland	—
Northern European	—	—	—	—	Austria, Belgium, Denmark, Finland, Netherlands, Norway, Sweden, Switzerland	—
Continental European	—	—	—	—	Austria, Belgium, Denmark, Finland, Netherlands, Norway, Sweden, Switzerland	—
- Southern-central European	—	—	—	—	Austria, Belgium, Denmark, Finland, Netherlands, Norway, Sweden, Switzerland	—
- Anglo-Saxon and Pacific	—	—	—	—	Austria, Belgium, Denmark, Finland, Netherlands, Norway, Sweden, Switzerland	—
Eastern-central European	—	—	Czechia, Estonia, Hungary	—	—	—
Anglo-Saxon and Zealand, United States	—	—	Australia, Canada, Estonia, Ireland, Japan, New Zealand, United Kingdom, United States	—	—	—
Anglo-Saxon	—	—	—	—	—	—
North-American Pacific	—	—	—	—	—	—
- Emerging Countries	—	—	—	—	—	—
- Two Giants	—	—	—	—	—	—
- Singletons	—	—	—	—	—	—

Table 2: Composition of each kind of capitalism as identified in the full and sub-samples analyses. Singletons are countries standing alone.

I identify five capitalisms as seen through the lenses of their mode of regulation: the Northern-continental European, the Southern-central European, the Anglo-Saxon and Pacific, the Emerging Countries and the Two Giants.

As shown in table 3, a first observation is that for some institutional forms, several modalities characterize one kind of regulation mode. It is the case of the Anglo-Saxon and Pacific capitalism with two somewhat contradictory kinds of social relation to the environment. The analysis applied to the non-European countries sample indicates a difference between North America and Pacific capitalisms: the former exhibit an ecology-adverse political orientation while the latter is either more materially offshore with ambiguous ecological sentiments (Japan) or materially onshore for energy and GHG but with an ecology-prone socio-political orientation (Australia and New Zealand). These countries have otherwise similar institutional forms and only differ by their degree of integration into political globalization.

An interesting result is the correspondence between the social relation to the environment and the wage-labour nexus. The Northern-continental European capitalism has the most labour-oriented one together with the most ecology-prone social relation to the environment. In the Anglo-Saxon and Pacific capitalism, the wage-labour nexus is oriented towards labour flexibility but still has a higher share of the value added distributed to labour and a lower distributed profit share than other capitalisms outside the Northern-continental one. Other capitalisms exhibit less labour-oriented wage-labour nexus and either ambiguous or ecology-adverse social relations to the environment. The same observation can be made for the welfare state: more welfare oriented capitalisms are also the ones with an ecology-prone social relation to the environment. This result is consistent with the similar divide in the fields of environmental policy and welfare state (Jahn, 2014).

Other associations of institutional forms have less clear patterns. For the monetary regime, financial closeness with high interest and inflation correlates with ecology-adverse social relations to the environment in the Emerging Countries and Two Giants capitalisms. It does not in the Anglo-Saxon and Pacific case. For competition, a common feature of capitalisms with more ecology-oriented social relations to the environment is their openness to foreign suppliers, despite other differences in their competition regime. For example, strong competition cohabits with a more nuanced competition regime in the Northern-continental European capitalism. In the Anglo-Saxon and Pacific case, strong competition goes with a more ecology-prone social relation to the environment in the Pacific capitalism but not in the North American one. To the contrary, weak competition in all sectors and closeness to foreign suppliers are associated with ecology-adverse social relations to the environment. As for the insertion into the international regime, in line with the localization of environmental materiality, an insertion through services sector is associated with an ecology-prone mode of regulation in the Northern-continental European case as well as in the Anglo-Saxon and Pacific case. This observation holds also partly for the Southern-central European case, which has an ambiguous socio-political orientation on ecological issues.

Regulation mode	Northern-continental European	Southern-central European	Euro-Pacific	Anglo-Saxon and Pacific	Emerging Countries	Two Giants
<b>Social relation to the environment</b>	Materially offshore, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation	Materially offshore	socio-politically onshore for energy and GHG & Ecology-adverse socio-political orientation	Ecology-prone socio-politically onshore for energy and GHG & Ecology-adverse socio-political orientation	Ecology-adverse socio-political orientation	Materially onshore, most unequal distribution of environmental amenities and benefits and ecology-adverse political orientation
<b>Monetary regime</b>	Financial openness with strong preference for liquidity and strict prudential regulation	Low interest and inflation, weak preference for liquidity and loose prudential regulation	Low interest and inflation, weak preference for liquidity and loose prudential regulation	Financial closeness with high interest	Financial closeness with high interest and inflation, high interest and inflation, weak preference for liquidity and loose prudential regulation	Financial closeness with high interest and inflation, high interest and inflation, weak preference for liquidity and loose prudential regulation
<b>Wage-labour nexus</b>	Labour protective, wage-oriented value added distribution, low working time and low income inequality	Capital-oriented value added distribution, high unemployment and low income inequality	Labour market flexibility, wage-oriented value added distribution, high working time and high income inequality	Labour market flexibility, capital-oriented value added distribution, high working time and high income inequality	Weak competition and closeness to foreign suppliers but strong competition in the postal sector and strong communication and simplification of rules and procedures & Weak competition and closeness to foreign suppliers but strong competition in banking	Oriented towards profit re-investment rather than distribution, high working time & Labour market flexibility, capital-oriented value added distribution, high working time and high income inequality
<b>Form of competition</b>	Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public firms & Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public firms	Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises	Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises	Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises	Economic control and partiality, welfare-oriented & Sovereign, partially welfare-oriented and smaller overall size	Weak competition, closeness to foreign suppliers, strong government control and strong competition in the telecom sector
<b>Form of the state</b>	Strongly welfare oriented and bigger overall size	Weakly welfare-oriented	Partially welfare-oriented and smaller overall size	Partially welfare-oriented and smaller overall size	Economic control and partially welfare-oriented	Economic control and partially welfare-oriented
<b>Insertion into the international regime</b>	Through non-FIRE services and a strong integration into all dimensions of globalization	Through manufacturing sector and trade	Through FIRE services and a weak integration into all political dimensions of globalization	Through a weak integration into all dimensions of globalization	Through agriculture and secondary sectors and a weak integration into non-political globalizations	Through services sectors and political globalization

Table 3: The social relation to the environment and the diversity of contemporary capitalisms through the lenses of the modes of regulation.

## 6 Towards a model of ecology-prone capitalism ?

Looking at the production sphere, Lipietz (1997) formulates the hypothesis that countries with a more labour-oriented wage-labour nexus have a more environment-friendly stance. The negotiated implication of workers in production and more secured employment favour shifting to more ecological processes through higher skills and technological means. He further assumes that environmental policies are seen as comparative advantages by more labour-friendly countries, while countries with less labour-oriented wage-labour nexus, e.g. Emerging countries or the Two Giants, see it as an impediment to their development. The results showing a correspondence between ecology-prone social relations to the environment and labour-oriented wage-labour nexuses substantiate this hypothesis. Furthermore, ecology-adverse capitalisms exhibit a higher share of distributed profit (with the notable exception of China). The latter has been shown to slow down productive investment and innovation (Lazonick and O'Sullivan, 2000; Lazonick, 2010; Stockhammer, 2006) and could then indicate less concerns about adopting more sustainable production processes, which require long-term planning and patient capital. The comparative advantage hypothesis also echoes the results as ecology-prone social relations to the environment are associated with competition regimes featuring openness to foreign suppliers.

Looking at the social sphere also sheds light on the wage-labour nexus/welfare state/social relation to the environment conundrum. Just as the "labour constraint" gave rise to a working class movement that opposed the logic of capital and pushed for better living conditions, the ecological constraint shapes new power struggles (O'Connor, 1988) and key actors preferences — firms, state, citizens. Therefore, the social relation to the environment can only progress towards a more ecological stance through, e.g., strong social movements or wide social blocs supporting ambitious compromises on ecological issues (Amable and Palombarini, 2008). At a more individual scale, less working hours, better employment protection and welfare public services allow citizens to engage with issues that do not necessarily pertain to their immediate daily concerns<sup>6</sup>.

Interpreting the links between the monetary regime and the social relation to the environment is more arduous. The cohabitation of high inflation and high interest rates monetary regimes with ecology-adverse social relations to the environment in the Emerging Countries and the Two Giants capitalisms might provide a clue. Evidences in the literature show that a trade-off between monetary and environmental policies arises in some developing countries: As the government renounces to seigniorage and adopts a restrictive monetary policy to fight inflation, it fosters the rate of natural resources exploitation to find alternative funding (Combes et al., 2015).

Last but not least, the insertion into the international regime shows the correspondence of the productive structure and the social relation to the environment: The ecology-prone capitalisms

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<sup>6</sup>The yellow jackets movement in France provides interesting clues in this regard: People were not protesting against environmental measures but about them mostly falling on already impoverished people. A popular motto was "they tell us about the end of the world but we don't know how to end the month".

are the ones whose environmental materiality is largely offshore. The degree of integration in political globalization does not exhibit a clear pattern with the social relation to the environment. For instance, a strong integration is associated with ecology-prone (Northern-continental European), ambiguous (Southern-central European) and ecology-adverse (North America) social relations to the environment. When looking at the number of environmental treaties ratifications, the Two Giants and the Emerging Countries capitalisms show the weakest integration into global environmental governance although the former exhibits an average integration into political globalization. The Southern-central European capitalism shows a higher degree of integration into global environmental governance than the Pacific capitalism but compromises regarding ecological issues seem less institutionalised in the former than in the latter. This uncertain pattern might indicate that — despite the global nature of many environmental challenges — the nation state remains the most relevant level to understand the shaping of the social relation to the environment. Indeed, the nation state is the structuring space of class relations and of the formation of socio-economic compromises (Görg and Brand, 2000; Brand and Wissen, 2013).

Running the analysis on the Amable (2003) and Elie et al. (2012) sample, I retrieve five models: Northern European, Continental European, Japan and Ireland, Anglo-Saxon and Southern European. Comparing with Amable indicates similarities although the composition of the clusters are somewhat different. The level of analysis and data differ and countries may have shifted from one model to another since the early 2000s. The environmental dimension may also be a differentiating factor. Comparing with Elie et al. confirms that ecology-prone capitalisms tend to overlap with stricter models of environmental regulation. Applying the analysis on the Jahn (2014) sample allows to retrieve three capitalisms: Northern-continental European, Southern European and Anglo-Saxon. There are mild similarities with the three worlds of environmental politics in terms of cluster composition but the main conclusions remain: The most ecology-prone capitalisms correspond to the most environmentally performing countries in Jahn<sup>7</sup>.

Perhaps there are models of capitalism better equipped for the transition towards sustainable socio-economic systems than others. Capitalisms associating labour-oriented policies, welfare public services and openness to foreign exchange might foster an ecology-prone social relation to the environment and the conditions for such a transition. The results suggest that there might be an institutional complementarity — that is the mutual reinforcement of institutions regulating different areas of conflicts (Douai and Montalban, 2012) — between these specific forms of social relation to the environment, wage-labour nexus, competition and state. However, the environmental materiality of the ecology-prone capitalisms is offshore to a great extent, an observation consistent with the critical literature on the Environmental Kuznets Curve. These capitalisms still imply an *imperial mode of living*, the fossilist patterns of production and consumption entailing a disproportionate claim on global resources (Brand and Wissen, 2013).

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<sup>7</sup>Table A62 in the appendix offers a comparison with Amable, Elie et al. and Jahn typologies.

## 7 Conclusion

Contemporary capitalism faces an increasing ecological constraint that is reconfiguring the society-environment relation. In Regulation Theory terms, it implies that the social relation to the environment is becoming a *regulation* of capitalism in itself. It can no more be solely considered a by-product of other key social relations. Replacing the theoretical debate in the historical context of the rising ecological constraint, I argued for its integration as the sixth institutional form shaping the modes of regulation of capitalism. Using this augmented RT framework, I then conducted a study of the diversity of contemporary capitalism. I obtained five kinds of capitalism supported by modes of regulation exhibiting different patterns of association between the social relation to the environment and the other institutional forms. Although there are of course nuances, the main empirical result is that ecology-prone social relations to the environment go together with a labour-oriented wage-labour nexus, a welfare-oriented state and openness to international exchange.

This work can therefore be of interest to Ecological Economics on several grounds. It provides a theoretical and empirical framework to contextualize and understand the (lack of) emergence of environmental policies and alternatives to the current growth paradigm. It can also trigger conceptual refinement: The social relation to the environment is close to the concept of social metabolism in EE, defined as the way societies organize their exchanges with their environment to reproduce their socio-economic systems (Fischer-Kowalski and Haberl, 1993; Muradian et al., 2012; Martinez-Alier et al., 2010). The latter mainly focuses on the material aspects in providing the conceptual basis for material flow analysis (Fischer-Kowalski and Hüttler, 1998) while the former encompasses both the material and socio-political dimensions of the society-environment interactions.

However, this work is, to the best of my knowledge, the first of its kind and not exempt of limits. This is where ecological economists could fertilize RT very usefully, on three grounds at least. First, the social relations codified in this sixth institutional form are complex — combining the state, firms and citizens, themselves not homogeneous in their preferences — and are still to be properly understood. Second, while the theoretical discussion refers to a historical process, the empirical study takes a spatial stance and is a picture taken at one point in time. The empirical part is then not a test or a proof of the theoretical discussion. Third, the discussion focused on the influences of the five institutional forms on the social relation to the environment. Reaching a full comprehension requires to understand these influences much deeper, but foremost to understand how the social relation to the environment shapes the other institutional forms.

Finally, cross-fertilizing RT and EE could usefully add to ecological macroeconomics, which, while promising, still lacks an institutionalist stance (Hardt and O'Neill, 2017; Rezai and Stagl, 2016). Ecological macroeconomics has been primarily a convergence between EE and post-Keynesian economics but RT and PKE have long been close companions. Integrating the three in the joint study of environmental and socio-economic dynamics is a promising avenue of research.

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# Technical appendix to *The social relation to the environment in contemporary capitalism: theoretical reflections and empirical explorations*

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## Abstract

This document provides the detailed results of all the intermediate steps to model the institutional forms and the modes of regulation as presented in the article *The social relation to the environment in contemporary capitalism: theoretical reflections and empirical explorations*.

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## 1 Introduction

This appendix contains the detailed results of all the intermediate steps of the empirical part as well as well synthetic tables complementing the final results. Raw data, sources, principal components analyses and clustering performed to model each institutional form are presented in sections 2 to 7. Raw data, multiple correspondences analyses and clustering to model the modes of regulation for the full, OECD, European union, non-European union, Amable (2003)/Elie et al. (2012) and Jahn (2014) samples are presented in section 8 to14. Finally, table A64 indicates the corresponding modes of regulation for each country.

A few values in the raw data used to model the form of competition and the form of the state were missing for Russia and China. As explained in subsections 5.2 and 6.2, they were imputed using an iterative algorithm implemented in the MissMDA package for R (Josse and Husson, 2015). This procedure does not affect the identification of the principal components, while providing a full dataset to work upon. As shown below, measures of imputation uncertainty indicate sufficiently high quality: The imputed values are similar from one imputed dataset to another when doing multiple imputation (1000). Finally, as the reader may notice, the clusters happen sometimes to slightly vary between hierarchical trees and their final composition. This is due to the consolidation  $k$ -means algorithm that is used on top of the hierarchical clustering algorithm: the former improves the homogeneity of the clusters, which may result on a different composition as compared to the initial hierarchical clustering.

## 2 The social relation to the environment

### 2.1 Sources and raw data

Name	Variable	Source
IUCN	Organizations member of IUCN per millions inhab	<a href="https://portals.iucn.org/union/members-website">https://portals.iucn.org/union/members-website</a> and World Development Indicators (WDI, population)
GreenP	Financial supporters of Greenpeace in % of population	Greenpeace national websites and 2013 annual report and WDI (population)
EnvConflicts	Environmental conflicts per millions inhab	(Temper et al., 2015, conflicts) and WDI (population)
ClassGHG	Class structure of GHG emissions	Ratio of the emissions of the 9th income decile to the 1st income decile, Piketty and Chancel (2015). All countries for 2013 except Australia (2003) and New Zealand (1998). For Chile data were missing and approximated using the ratio of income of the 9th to the 1st deciles as values were really close for the other countries.
EnvReg	Environmental regulation stringency	World Economic Forum (WEF), Score: 1-7 ; 1 = very lax; 7 = amongst the world most stringent, 2015-2016 weighted average, <a href="http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/ranking/#series=EOSQ160">http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/ranking/#series=EOSQ160</a>
EnfEnvReg	Enforcement of environmental regulation	WEF, Score: 1-7 ; 1 = Very lax ; 7 = Among the world most rigorous, 2015-2016 weighted average, <a href="http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/ranking/#series=EOSQ161">http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/ranking/#series=EOSQ161</a>
EnvTreaties	Environmental international treaties ratified in 2016	WEF, <a href="http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/ranking/#series=ENVTREATY">http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/ranking/#series=ENVTREATY</a>
EnerGDP	GDP intensity in energy	WDI, 2015 except for Brazil, China, India, Russia and South Africa (2014)
GHGGDP	GDP intensity in GHG	OECDStat and Edgarv4.3.2 (GHG, for China, India and South Africa) and WDI (GDP), 2015 except for Brazil, China, India, South Africa (2012), Chile and Mexico (2013), Israel and South Korea (2014)
MatGDP	GDP intensity in materials	OECDStat (materials) and World Development Indicators (GDP), 2015 for all countries
MatEmb	Embodied materials in net import relatively to material consumption	Eora v199.82 (Lenzen et al., 2012, 2013)
EnerEmb	Embodied energy in net imports relatively to energy consumption	
CO2Emb	Embodied GHG in net imports relatively to GHG consumption	

Table A1: Variables and sources for the social relation to the environment. URLs: retrieved May 2, 2019.

Country	IUCN	GreenP	EnvConflicts	ClassGHG	EnvReg	EnvTreaties	EnvEnvReg	EnerGDP	GHGdp	MatGDP	MatEmb	EnerEmb	CO2Emb
Australia	1.28	0.21	0.70	5.50	5.70	24	5.70	0.10	408	0.70	-131.20	-9.10	1.90
Austria	0.59	0.12	0.70	3.40	6.20	25	6.10	0.08	190	0.42	56.90	8.40	25.90
Belgium	1.16	0.85	0.40	3.60	5.50	26	5.20	0.10	231	0.29	-81.40	-1.40	
Brazil	0.10	0.02	0.50	14.40	4.70	24	3.70	0.13	439	1.47	-13.80	4.60	12.10
Canada	0.62	0.25	0.70	6.80	5.00	19	5.00	0.15	400	0.58	13.70	3.80	3.50
Chile	0.17	0.04	2.80	8.50	4.70	22	4.70	0.14	433	2.77	-188.50	5.50	
China	0.02	0.01	0.10	9.60	4.10	23	3.80	0.37	1679	3.65	-7.50	-16.20	
Czechia	0.48	0.09	0.10	3.10	5.20	25	4.40	0.18	564	0.74	5.50	-4.40	
Denmark	1.77	0.62	0.50	3.10	5.80	30	6.00	0.05	145	0.37	39.30	21.20	37.50
Estonia	1.52	0.00	0.80	4.10	5.40	27	5.30	0.24	773	1.56	-37.40	-9.60	-28.80
Finland	1.10	0.62	0.70	3.30	6.20	30	6.20	0.13	224	0.67	48.20	5.90	30.50
France	0.91	0.25	0.30	3.90	5.10	30	4.90	0.09	167	0.27	53.60	13.10	34.10
Germany	0.64	0.30	0.72	3.80	6.00	30	5.70	0.08	243	0.35	52.40	5.00	
Greece	0.71	0.09	1.30	4.60	4.40	27	3.80	0.10	391	0.53	-5.10	36.00	37.90
Hungary	0.03	0.12	0.60	3.40	4.00	28	3.40	0.17	424	0.87	8.10	4.90	11.10
India	0.00	0.00	0.20	5.30	4.40	24	4.40	0.39	1699	3.04	-12.90	-4.90	-11.60
Ireland	0.00	0.00	0.60	3.70	5.20	27	5.10	0.04	189	0.31	25.50	21.40	
Israel	0.49	1.22	0.10	8.30	4.70	17	4.50	0.08	288	0.39	58.80	20.70	15.20
Italy	0.36	0.14	0.40	4.50	4.30	26	3.50	0.07	210	0.25	48.80	19.50	22.60
Japan	0.16	0.01	0.20	4.70	5.80	24	5.60	0.07	221	0.20	76.80	17.50	14.80
Mexico	0.16	0.02	0.60	10.10	4.00	22	3.50	0.16	549	1.02	-5.80	4.50	5.20
Netherlands	2.25	2.43	0.20	3.40	5.80	29	5.60	0.08	224	0.21	60.30	14.50	
New Zealand	2.00	1.11	1.10	5.90	5.60	23	5.60	0.12	482	0.68	-21.50	3.50	14.30
Norway	0.58	0.62	0.60	3.20	6.10	30	6.00	0.07	115	0.41	-59.90	42.30	
Poland	0.24	0.12	0.20	4.40	4.50	28	3.80	0.17	691	1.17	8.70	9.90	
Portugal	0.48	0.00	1.00	4.80	5.30	29	4.70	0.10	301	0.68	24.50	23.50	25.00
Russia	0.05	0.00	0.10	5.00	3.60	20	3.40	0.42	1639	1.42	-158.60	-16.50	-30.20
Slovenia	0.18	0.12	0.00	3.40	4.90	26	4.10	0.16	407	0.67	79.10	29.50	41.80
South Africa	0.46	0.12	4.80	2.90	5.40	27	4.80	0.13	344	0.56	6.80	13.10	
South Korea	0.65	0.01	0.40	10.80	4.70	24	4.10	0.36	1222	1.52	-64.10	-25.60	-23.60
Spain	0.84	0.22	0.20	6.50	4.50	24	4.20	0.22	560	0.63	-9.10	0.10	
Sweden	1.13	0.62	1.50	3.30	6.20	30	6.10	0.09	99	0.40	20.20	13.20	51.70
Switzerland	2.32	1.95	0.20	4.20	6.20	26	6.20	0.04	76	0.14	43.80	27.30	58.90
Turkey	0.07	0.13	0.70	6.10	3.80	16	3.50	0.12	437	0.93	3.60	22.60	
United Kingdom	0.68	0.20	0.30	4.60	5.40	28	5.30	0.07	187	0.21	68.90	33.20	39.30
United States	0.29	0.08	0.30	9.10	5.30	15	5.40	0.13	395	0.41	32.20	6.40	12.20

Table A2: Raw data for the variables used to model the social relation to the environment.

## 2.2 Principal components analysis

The first two principal components were kept for the analysis. They represent 58.67% of the total variance of the dataset. The information represented on the axes 1:2 plan is therefore significant: It is higher than the reference value (at the 5% significance level) for similar plans obtained through simulating 2061 comparable random datasets following a normal distribution of inertia percentages (33.49%). However, when looking at the individual axes, only the first one carries an information above the reference value for the 0.95 quantile of random distributions (44.52% vs. 18.89%). Since this value is lower than 50%, since that two axes are needed to project individuals and data on the plan and that the latter carries a significant information, I kept axis 2 as well.

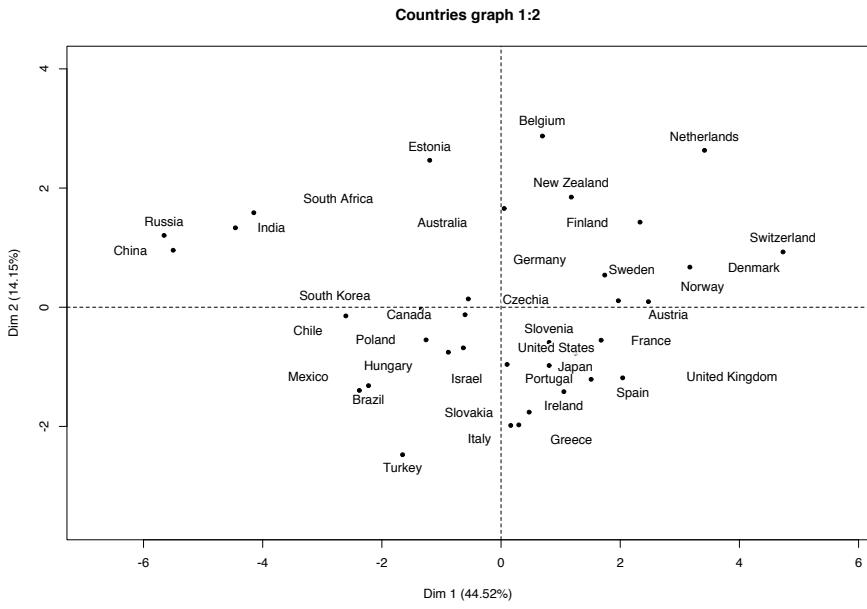


Figure A1: Factorial plan of the two first principal components (axes) for the countries. Countries with a high absolute value on one axis have a high absolute value for the variables correlated to this axis.

On figure A1, the first dimension discriminates mainly between countries on the right side with high values for environmental regulation enforcement, environmental regulation, Greenpeace supporters, IUCN organizations and embodied CO<sub>2</sub> in imports and low values for the class structure of emissions and the greenhouse gases intensity of GDP and countries on the left side with high values for the energy, greenhouse gases and materials intensity of GDP and the class structure of emissions and low values for embodied CO<sub>2</sub>, energy and materials in import and environmental regulation. The second dimension distinguishes mainly countries on the positive side with high values for *EnerEmb* and low values for *EnfEnvReg* from the others with negative coordinates on the axis.

Figure A2 indicates that the variables are fairly well represented on the plan. Table A3 provides the details results of the PCA.

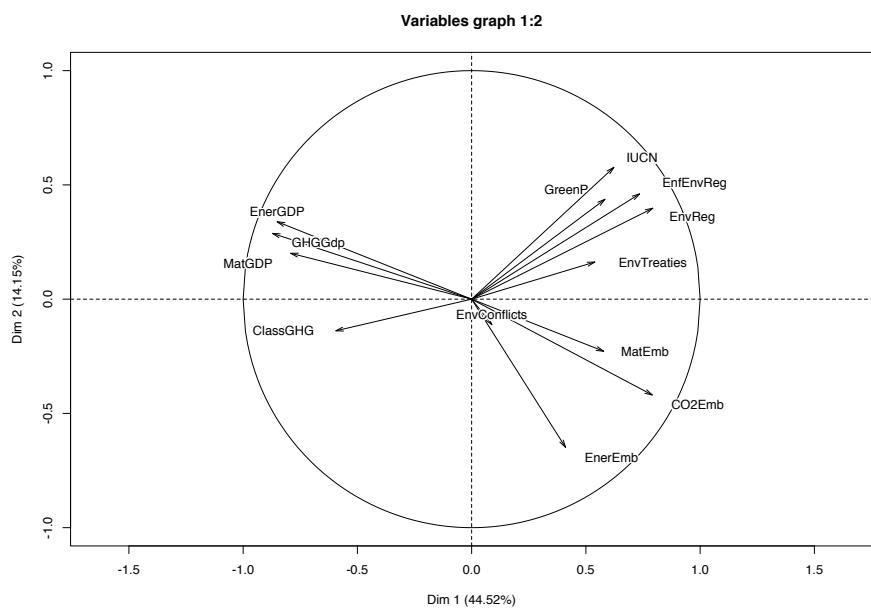


Figure A2: Factorial plan of the two first principal components for the variables. The closer to the unit circle a variable, the better its projection quality on the plan. The closer a variable for an axis, the higher its correlation to this axis. Countries with a high absolute value on an axis have a high value for the given variable.

	Coordinates		Square cosine		Contributions	
	Dim. 1	Dim. 2	Dim. 1	Dim. 2	Dim. 1	Dim. 2
<b>ClassGHG</b>	-0.59	-0.14	0.35	0.02	6.10	1.04
CO2Emb	0.79	-0.42	0.63	0.18	10.80	9.57
EnerEmb	0.41	-0.65	0.17	0.42	2.92	22.87
EnerGDP	-0.85	0.34	0.72	0.12	12.51	6.24
EnvEnvReg	0.74	0.46	0.54	0.21	9.34	11.54
EnvConflicts	0.09	-0.11	0.01	0.01	0.14	0.68
EnvReg	0.79	0.40	0.63	0.16	10.86	8.61
EnvTreaties	0.54	0.16	0.29	0.03	5.02	1.44
GHGGdp	-0.87	0.29	0.76	0.08	13.13	4.51
GreenP	0.58	0.44	0.34	0.19	5.88	10.38
IUCN	0.62	0.58	0.39	0.33	6.70	18.10
MatEmb	0.58	-0.23	0.33	0.05	5.77	2.83
MatGDP	-0.79	0.20	0.63	0.04	10.84	2.19
<b>Australia</b>	0.05	1.66	0.00	0.30	0.00	4.04
Austria	1.97	0.11	0.54	0.00	1.81	0.02
Belgium	0.69	2.87	0.02	0.37	0.23	12.13
Brazil	-2.23	-1.32	0.31	0.11	2.31	2.55
Canada	-0.61	-0.13	0.11	0.01	0.17	0.02
Chile	-2.61	-0.15	0.27	0.00	3.17	0.03
China	-5.50	0.96	0.81	0.02	14.14	1.34
Czechia	-0.55	0.14	0.10	0.01	0.14	0.03
Denmark	3.17	0.67	0.84	0.04	4.69	0.67
Estonia	-1.20	2.47	0.13	0.55	0.67	8.94
Finland	2.33	1.43	0.59	0.22	2.54	3.00
France	1.68	-0.55	0.58	0.06	1.32	0.45
Germany	1.74	0.54	0.43	0.04	1.41	0.43
Greece	0.30	-1.98	0.01	0.58	0.04	5.73
Hungary	-0.89	-0.76	0.13	0.09	0.37	0.84
India	-4.46	1.33	0.71	0.06	9.28	2.61
Ireland	1.05	-1.42	0.22	0.39	0.52	2.95
Israel	0.10	-0.96	0.00	0.09	0.01	1.36
Italy	0.16	-1.98	0.00	0.63	0.01	5.78
Japan	1.25	-0.77	0.25	0.10	0.73	0.87
Mexico	-2.38	-1.40	0.58	0.20	2.64	2.87
Netherlands	3.41	2.63	0.44	0.26	5.44	10.19
New Zealand	1.18	1.85	0.16	0.40	0.65	5.02
Norway	2.47	0.09	0.53	0.00	2.86	0.01
Poland	-1.26	-0.55	0.36	0.07	0.74	0.44
Portugal	0.81	-0.98	0.22	0.32	0.30	1.41
Russia	-5.66	1.21	0.80	0.04	14.94	2.14
Slovakia	0.47	-1.76	0.03	0.45	0.10	4.56
Slovenia	0.81	-0.59	0.03	0.01	0.31	0.51
South Africa	-4.15	1.59	0.78	0.11	8.04	3.69
South Korea	-1.34	-0.03	0.41	0.00	0.84	0.00
Spain	1.51	-1.21	0.37	0.24	1.07	2.15
Sweden	3.16	0.40	0.78	0.01	4.67	0.23
Switzerland	4.73	0.93	0.70	0.03	10.45	1.27
Turkey	-1.65	-2.48	0.21	0.47	1.28	9.00
United Kingdom	2.04	-1.19	0.62	0.21	1.95	2.06
United States	-0.63	-0.68	0.04	0.04	0.19	0.68

Table A3: Detailed results for the PCA applied to the variables of the social relation to the environment. Coordinates values are identical to correlation values. The higher the absolute value of a coordinate, the stronger the correlation of the individual/variable to the axis. The sum of the square cosines indicates the projection quality of the individual/variable on the factorial plan. The contribution values indicate how much an individual/variable determines the axis.

## 2.3 Clustering

As indicated by figures A3 and A4, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying a clustering in five classes and the inter-inertia gains are still substantial. Table A4 indicates which variables characterize the most each of the clusters. Table A5 indicates the distribution of countries across clusters and provides a synthesis of each cluster characteristics.

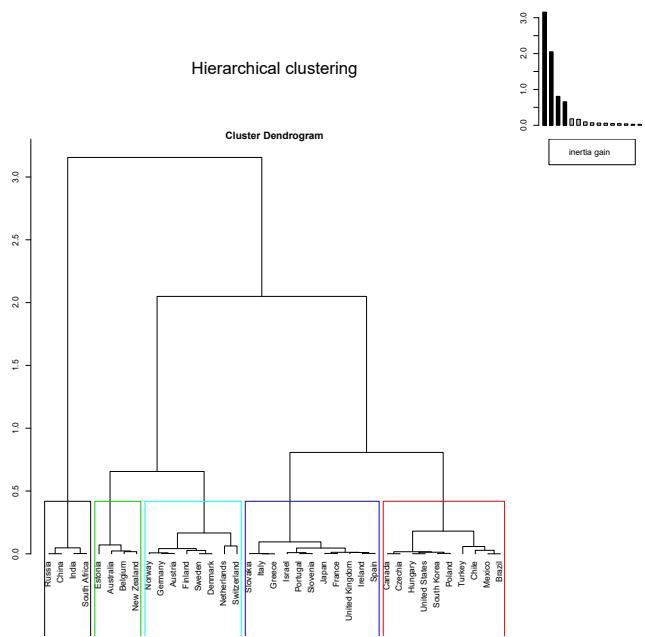


Figure A3: Hierarchical tree for the clustering of countries through their social relation to the environment.

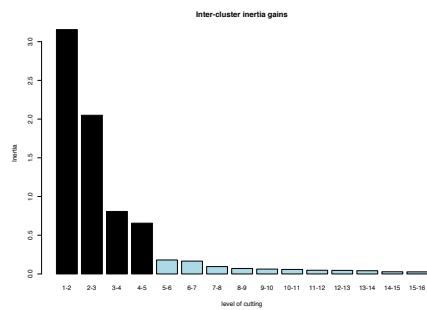


Figure A4: Hierarchical tree for the clustering of countries through their social relation to the environment.

	v.test	p.value	Cat mean.	Overall mean	v.test	p.value	Cat mean.	Overall mean	v.test	p.value	Cat mean.	Overall mean
ClassGHG	1.82	0.07	7.68	5.40	2.58	0.01	7.24	5.40	-0.50	0.62	4.78	5.40
CO2Emb	-3.49	0.00	-20.40	14.57	-1.23	0.22	7.55	14.57	-1.81	0.07	-3.50	14.57
EnerEmb	-2.10	0.04	-13.68	7.55	-0.21	0.83	6.33	7.55	-3.14	0.00	-24.15	7.55
EnerGDP	5.20	0.00	0.38	0.14	0.58	0.56	0.16	0.14	0.01	0.99	0.14	0.14
EnvEnvReg	-2.06	0.04	3.93	4.81	-2.65	0.01	4.16	4.81	1.49	0.14	5.45	4.81
EnvConflicts	-1.20	0.23	0.20	0.70	-0.12	0.91	0.67	0.70	0.13	0.90	0.75	0.70
EnvReg	-2.56	0.01	4.20	5.10	-2.62	0.01	4.57	5.10	0.19	0.19	5.55	5.10
EnvTreaties	-1.32	0.19	22.75	25.24	-2.71	0.01	22.30	25.24	-0.13	0.90	25.00	25.24
GHGGDP	5.46	0.00	1549.75	466.03	0.20	0.84	489.20	466.03	0.04	0.97	473.50	466.03
GreenP	-1.34	0.18	0.01	0.35	-1.80	0.07	0.09	0.35	0.72	0.47	0.54	0.35
IUCN	-1.84	0.07	0.14	0.68	-1.97	0.05	0.35	0.68	2.73	0.01	1.49	0.68
MatEmb	-2.39	0.02	-60.78	10.15	-0.97	0.33	-6.26	10.15	-1.49	0.14	-34.10	10.15
MatGDP	4.14	0.00	2.41	0.83	1.04	0.30	1.06	0.83	-0.06	0.95	0.81	0.83
<b>4</b>												
ClassGHG	-1.29	0.20	4.55	5.40	-2.35	0.02	3.46	5.40				
CO2Emb	2.25	0.02	26.62	14.57	2.82	0.01	33.29	14.57				
EnerEmb	2.73	0.01	22.32	7.55	1.15	0.25	15.25	7.55				
EnerGDP	-2.28	0.02	0.08	0.14	-2.03	0.04	0.08	0.14				
EnvEnvReg	-0.76	0.45	4.64	4.81	4.13	0.00	5.99	4.81				
EnvConflicts	1.20	0.23	0.96	0.70	-0.40	0.69	0.59	0.70				
EnvReg	-0.36	0.72	5.03	5.10	4.18	0.00	6.06	5.10				
EnvTreaties	1.10	0.27	26.36	25.24	2.79	0.01	28.75	25.24				
GHGGDP	-1.87	0.06	267.46	466.03	-2.29	0.02	164.50	466.03				
GreenP	-1.01	0.32	0.21	0.35	3.52	0.00	0.96	0.35				
IUCN	-1.32	0.19	0.48	0.68	2.92	0.00	1.26	0.68				
MatEmb	2.27	0.02	46.20	10.15	1.45	0.15	38.68	10.15				
MatGDP	-2.14	0.03	0.40	0.83	-1.83	0.07	0.37	0.83				
<b>5</b>												

Table A4: Detailed results for the clustering of the social relation to the environment

Cluster	Countries	Characterization	Details
1	China, India, Russia, South Africa	Materially onshore, most unequal distribution of environmental amenities and benefits and ecology-adverse political orientation	Highest GDP intensity in GHG, in energy and materials, most unequal class structure of emissions ; smallest number of IUCN organizations, loosest environmental regulation and enforcement, net exporter of embodied GHG (biggest), energy (< 3) and materials (biggest). Not significant: smallest number of environmental conflicts and of Greenpeace supporters, less ratifications of environmental treaties (> 2).
2	Brazil, Canada, Chile, Czechia, Hungary, Mexico, Poland, South Korea, Turkey, USA	Ecology-adverse political orientation	More unequal class structure of emissions (< 1) ; less Greenpeace supporters (> 1) and IUCN organizations (> 1), looser environmental regulation and enforcement (stronger than 1), smallest number of environmental treaties ratified. Not significant: higher GDP intensity in GHG, energy and materials (< 1) ; less environmental conflicts (> 1 and 5), net importer of embodied GHG and energy (< 4 and 5) and net exporter of embodied materials (< 1 and 3).
3	Australia, Belgium, Estonia, New Zealand	Ecology-prone political orientation and materially onshore for energy and GHG	Biggest number of members organizations of the IUCN ; net exporter of embodied GHG (< 1) and biggest net exporter of embodied energy. Not significant: Stricter environmental regulation and enforcement (< 5), more supporters of Greenpeace (< 5), biggest number of environmental conflicts, higher intensity of GDP in energy and GHG (< 1 and 2) ; smaller GDP intensity in materials (> 4 and 5), less ratifications of environmental treaties (> 1 and 2), less unequal class structure of emissions (> 4 and 5) and net exporter of embodied materials (< 1).
4	France, Greece, Ireland, Israel, Italy, Japan, Portugal, Slovakia, Slovenia, Spain, UK	Materially offshore	Biggest net importer of embodied energy and materials, higher net imports of embodied GHG (< 5) ; smaller GDP intensity in GHG and materials (> 5), smallest GDP intensity in energy (= 5). Not significant: biggest number of environmental conflicts, more ratifications of environmental treaties (< 5) ; looser environmental regulations and enforcement (> 1 and 2), less unequal class structure of emissions (> 5), less supporters of Greenpeace and IUCN organizations ((> 1 and 2) .
5	Austria, Denmark, Finland, Germany, Netherlands, Norway, Sweden, Switzerland	Materially offshore, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation	Stricest environmental regulation and enforcement, biggest number of Greenpeace supporters and higher number of IUCN organizations (> 3), biggest net importer of embodied GHG, biggest number of environmental treaties ratifications ; smallest GDP intensity in GHG, energy (=4) and materials ; least unequal class structure of emissions. Not significant: biggest net importer of embodied materials and higher net importer of energy (< 4), less environmental conflicts (> 1).

Table A5: Countries distribution across clusters and characterization for the social relation to the environment.

### 3 The monetary regime

#### 3.1 Sources and raw data

Name	Variable	Source
Int_rate	3-months interbank rate except Turkey (discount rate) and Brazil (day-to-day interbank rate)	OECD and FRED (Turkey) and Global Financial Database, World Bank, 2015 except South Korea (2014)
Inf_rate	Inflation rate	Consumer prices, all items, OECD
Fin_reg	Bank regulatory capital to risk-weighted assets (%)	Global Financial Development Database, World Bank ; IMF IFS (central bank claims on private sector). Data for New Zealand is as of 2010
LLR	Central bank assets to GDP (%) or Central bank claims on private sector (Mexico)	Global Financial Development Database, World Bank ; IMF IFS (central bank claims on private sector). Data for New Zealand is as of 2010
Fin openness	Capital account openness - Chinn-Ito Index	Chinn and Ito (2006)
Liq	Liquid assets to deposits and short term funding (%)	Global Financial Development database, World Bank

Table A6: Variables and sources for the monetary regime.

Country	Int_rate	Inf_rate	Fin_reg	LLR	FinOpen	Liq
Australia	2.3	1.5	13.9	0.5	0.9	18.7
Austria	0.0	0.9	16.5	2.7	1.0	29.7
Belgium	0.0	0.6	18.7	2.9	1.0	20.8
Brazil	14.3	9.0	16.4	20.4	0.2	61.4
Canada	0.8	1.1	14.2	4.7	1.0	37.6
Chile	4.9	4.3	12.6	0.5	0.7	19.3
China	4.8	1.4	13.5	2.2	0.2	16.4
Czechia	0.3	0.3	16.7	0.0	1.0	23.8
Denmark	-0.1	0.5	19.6	0.0	1.0	44.5
Estonia	0.0	-0.5	28.0	0.2	1.0	35.6
Finland	0.0	-0.2	23.1	2.0	1.0	58.6
France	0.0	0.0	17.1	4.0	1.0	54.0
Germany	0.0	0.2	18.3	1.6	1.0	46.4
Greece	0.0	-1.7	16.5	6.9	0.8	5.7
Hungary	1.5	-0.1	17.0	0.3	1.0	30.8
India	7.7	5.9	12.7	4.0	0.2	12.3
Ireland	0.0	-0.3	24.4	15.5	1.0	26.4
Israel	0.1	-0.6	14.0	1.0	1.0	22.4
Italy	0.0	0.0	14.5	9.9	1.0	28.7
Japan	0.2	0.8	15.6	54.4	1.0	24.8
Mexico	3.3	2.7	15.0	0.0	0.7	42.8
Netherlands	0.0	0.6	20.1	2.1	1.0	22.6
New Zealand	3.2	0.3	13.5	2.6	1.0	11.3
Norway	1.3	2.2	18.9	0.0	1.0	30.7
Poland	1.7	-0.9	16.0	0.0	0.7	11.0
Portugal	0.0	0.5	13.3	3.5	1.0	12.1
Russia	14.8	15.5	12.7	0.6	0.7	39.6
Slovakia	0.0	-0.3	17.8	2.7	0.8	5.8
Slovenia	0.0	-0.5	18.8	3.3	0.7	11.8
South Africa	6.1	4.5	14.2	1.3	0.2	22.9
South Korea	1.8	0.7	14.2	1.4	0.7	12.6
Spain	0.0	-0.5	14.7	5.6	1.0	22.3
Sweden	-0.3	0.0	24.2	2.1	1.0	31.6
Switzerland	-0.8	-1.1	17.0	0.3	1.0	61.3
Turkey	9.0	7.7	15.6	0.5	0.4	13.9
United Kingdom	0.6	0.1	19.6	0.0	1.0	45.1
United States	0.2	0.1	14.1	23.5	1.0	21.5

Table A7: Raw data for the monetary regime.

#### 3.2 Principal components analysis

The first two dimensions were kept for the analysis. They express 66.94% of the total dataset inertia. This value is greater than the reference value 52.96% that is the 0.95-quantile of the inertia percentages distribution obtained by simulating 1509 data tables of equivalent size on the basis of a normal distribution. The variability explained by this plane is thus significant. However, only the first axis presents an amount of inertia greater than those obtained by the 0.95- quantile of random distributions (45.61% against 30.54%). Since this value is below 50% and that two axes are needed to construct the factorial plan, I kept the second dimension too.

The dimension 1 opposes countries sharing low values *FinOpen* and *Fin\_reg* and high values for *Int\_rate*, *Inf\_rate* and *LLR* to countries with high values for variables *Fin\_reg*, *Liq* and *FinOpen* and low values for *Int\_rate*, *Liq* and *Inf\_rate*.

Dimension 2 discriminates between countries with high values for *Fin\_reg*, *Liq* and *FinOpen* and low values for *Int\_rate*, countries with high values for *Int\_rate*, *Inf\_rate* and *LLR* and countries with low values *Liq* and *Inf\_rate*.

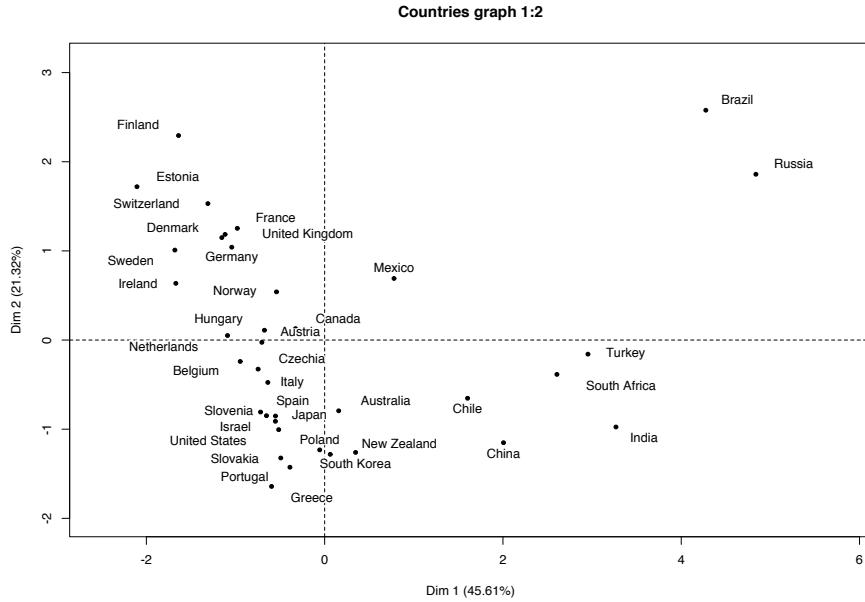


Figure A5: Projection of the countries on the factorial plan of the axes 1 and 2 for the monetary regime.

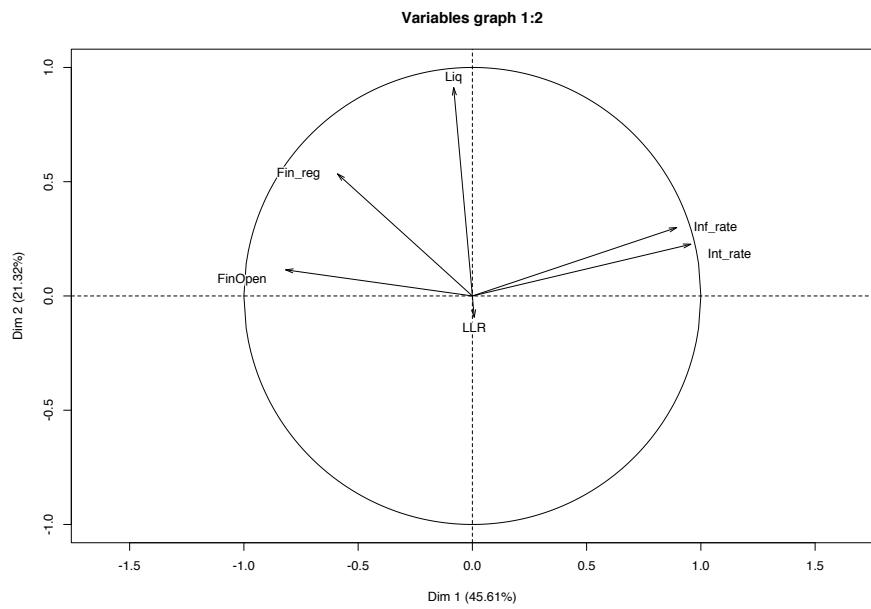


Figure A6: Projection of the variables on the factorial plan of the axes 1 and 2.

	Coordinates		Square cosines		Contribution	
	Dim. 1	Dim. 2	Dim. 1	Dim. 2	Dim. 1	Dim. 2
<b>Int_rate</b>	0.96	0.23	0.91	0.05	33.40	4.01
<b>Inf_rate</b>	0.89	0.30	0.80	0.09	29.22	7.00
<b>Fin_reg</b>	-0.59	0.53	0.35	0.29	12.73	22.31
<b>LLR</b>	0.01	-0.09	0.00	0.01	0.00	0.68
<b>FinOpen</b>	-0.82	0.11	0.67	0.01	24.41	1.02
<b>Liq</b>	-0.08	0.91	0.01	0.83	0.24	64.98
<b>Australia</b>	0.16	-0.79	0.02	0.44	0.02	1.33
<b>Austria</b>	-0.70	-0.03	0.61	0.00	0.49	0.00
<b>Belgium</b>	-0.95	-0.24	0.68	0.04	0.89	0.12
<b>Brazil</b>	4.28	2.58	0.63	0.23	18.05	14.04
<b>Canada</b>	-0.33	0.13	0.07	0.01	0.11	0.03
<b>Chile</b>	1.60	-0.65	0.73	0.12	2.54	0.90
<b>China</b>	2.01	-1.15	0.49	0.16	3.98	2.80
<b>Czechia</b>	-0.75	-0.33	0.52	0.10	0.55	0.22
<b>Denmark</b>	-1.15	1.15	0.46	0.46	1.31	2.79
<b>Estonia</b>	-2.11	1.72	0.39	0.26	4.38	6.25
<b>Finland</b>	-1.64	2.29	0.33	0.64	2.65	11.12
<b>France</b>	-0.98	1.25	0.25	0.41	0.95	3.32
<b>Germany</b>	-1.04	1.04	0.42	0.42	1.07	2.29
<b>Greece</b>	-0.60	-1.64	0.10	0.76	0.35	5.70
<b>Hungary</b>	-0.68	0.11	0.51	0.01	0.45	0.03
<b>India</b>	3.27	-0.98	0.85	0.08	10.54	2.01
<b>Ireland</b>	-1.67	0.64	0.42	0.06	2.75	0.85
<b>Israel</b>	-0.65	-0.85	0.21	0.36	0.42	1.52
<b>Italy</b>	-0.64	-0.48	0.26	0.14	0.40	0.48
<b>Japan</b>	-0.55	-0.85	0.01	0.03	0.30	1.53
<b>Mexico</b>	0.78	0.69	0.31	0.24	0.60	1.01
<b>Netherlands</b>	-1.09	0.05	0.65	0.00	1.17	0.01
<b>New Zealand</b>	0.06	-1.28	0.00	0.60	0.00	3.47
<b>Norway</b>	-0.54	0.54	0.26	0.26	0.29	0.62
<b>Poland</b>	-0.06	-1.23	0.00	0.65	0.00	3.21
<b>Portugal</b>	-0.39	-1.43	0.05	0.70	0.15	4.30
<b>Russia</b>	4.84	1.86	0.73	0.11	23.11	7.30
<b>Slovakia</b>	-0.49	-1.32	0.08	0.59	0.24	3.70
<b>Slovenia</b>	-0.55	-0.91	0.13	0.35	0.30	1.75
<b>South Africa</b>	2.61	-0.39	0.77	0.02	6.70	0.31
<b>South Korea</b>	0.35	-1.26	0.06	0.81	0.12	3.36
<b>Spain</b>	-0.72	-0.81	0.33	0.41	0.51	1.38
<b>Sweden</b>	-1.68	1.01	0.52	0.19	2.79	2.15
<b>Switzerland</b>	-1.31	1.53	0.26	0.35	1.70	4.95
<b>Turkey</b>	2.95	-0.16	0.86	0.00	8.61	0.05
<b>United Kingdom</b>	-1.12	1.19	0.43	0.49	1.23	2.97
<b>United States</b>	-0.52	-1.01	0.05	0.20	0.26	2.13

Table A8: Detailed results for the PCA applied to the variables of the monetary regime.

### 3.3 Clustering

As indicated by figures A7 and A8, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying such a clustering and the inter-inertia gains are still substantial. Table A9 indicates which variables characterize the most each cluster. Table A10 indicates the distribution of countries across clusters and provides a synthesis of each cluster characteristics.

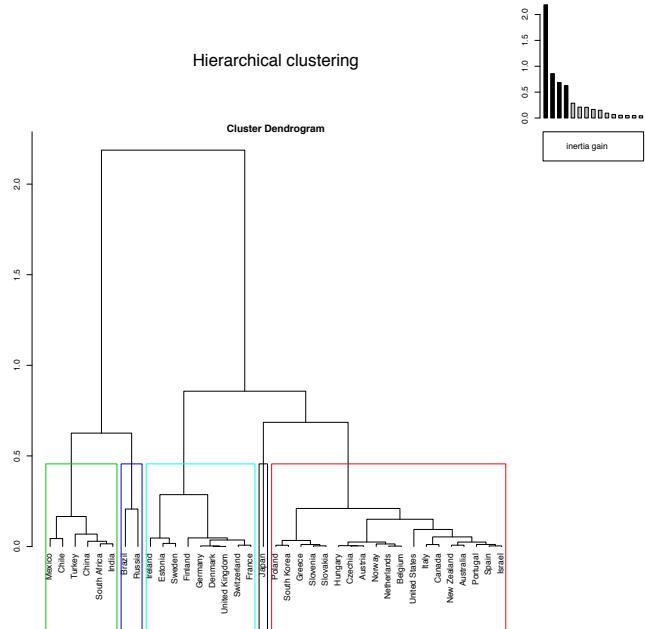


Figure A7: Hierarchical tree for the clustering of countries through their monetary regime.

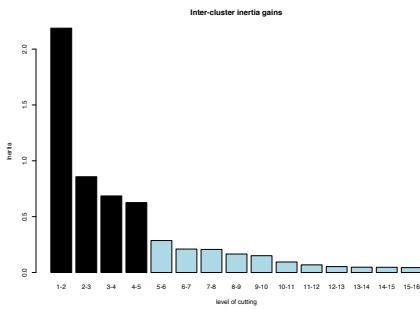


Figure A8: Hierarchical tree for the clustering of countries through their monetary regime.

	v.test	p.value	Cat mean.	Overall mean	v.test	p.value	Cat mean.	Overall mean	v.test	p.value	Cat mean.	Overall mean
<b>Fin_reg</b>	4.52	0.00	20.95	16.83	-0.36	0.72	15.55	16.83	-2.17	0.03	15.52	16.83
<b>Fin_Open</b>	2.43	0.02	1.00	0.83	0.62	0.53	1.00	0.83	1.54	0.13	0.90	0.83
<b>Inf_rate</b>	-1.60	0.11	0.12	1.48	-0.21	0.84	0.79	1.48	-2.21	0.03	0.23	1.48
<b>Int_rate</b>	-2.12	0.03	0.05	2.09	-0.51	0.61	0.17	2.09	-1.94	0.05	0.84	2.09
<b>Liq</b>	3.46	0.00	41.52	28.01	-0.21	0.83	24.76	28.01	-2.88	0.00	20.52	28.01
<b>LLR</b>	-0.97	0.33	2.52	4.95	5.03	0.00	54.37	4.95	-0.58	0.56	3.96	4.95
			<b>4</b>						<b>5</b>			
<b>Fin_reg</b>	-2.09	0.04	13.70	16.83	-0.93	0.35	14.53	16.83				
<b>Fin_Open</b>	-4.42	0.00	0.33	0.83	-0.35	0.04	0.45	0.83				
<b>Inf_rate</b>	2.37	0.02	4.77	1.48	-2.07	4.70	0.00	12.28				
<b>Int_rate</b>	2.78	0.01	6.49	2.09	-4.74	0.00	14.51	2.09				
<b>Liq</b>	-1.72	0.09	16.96	28.01	2.12	0.03	50.46	28.01				
<b>LLR</b>	-0.78	0.44	1.72	4.95	0.81	0.42	10.48	4.95				

Table A9: Detailed results for the clustering of the monetary regime.

Cluster	Countries	Characterization	Details
1	Denmark, Estonia, Finland, France, Germany, Ireland, Netherlands, Norway, Sweden, Switzerland, UK	Financial openness with strong preference for liquidity and strict prudential regulation	Highest bank regulatory capital to risk-weighted assets ratio, higher liquid assets to deposits and short-term funding ratio ( $< 5$ ), most open capital account ( $= 2$ ); smallest interest rate. Not significant: smaller central bank assets to GDP ratio ( $> 4$ ), smallest inflation rate.
2	Japan	Intensive activism of the central bank	Highest central bank assets to GDP ratio. Not significant: most open capital account ( $= 1$ ); smaller inflation rate ( $> 1$ and $2$ ), smaller liquid assets to deposits and short-term funding ratio ( $> 3$ and $4$ ), smaller bank regulatory capital to risk-weighted assets ratio ( $> 3, 4$ and $5$ ), smaller interest rate ( $> 1$ ).
3	Australia, Austria, Belgium, Canada, Czechia, Greece, Hungary, Israel, Italy, Mexico, New Zealand, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, USA	Low interest and inflation, weak preference for liquidity and loose prudential regulation	Lower interest ( $> 1$ and $2$ ) and inflation rates ( $> 1$ ), smaller bank regulatory capital to risk-weighted assets ratio ( $> 4$ and $5$ ), smaller liquid assets to deposits and short-term funding ratio ( $> 4$ ). Not significant: more open capital account ( $< 1$ and $2$ ), smaller central bank assets to GDP ratio ( $> 4$ and $1$ ).
4	Chile, China, India, South Africa, Turkey,	Financial closeness with high interest and inflation, weak preference for liquidity and loose prudential regulation	Higher interest and inflation rates ( $< 5$ ) ; smallest liquid assets to deposits and short-term funding ratio , smallest bank regulatory capital to risk-weighted assets ratio, least open capital account. Not significant: smallest central bank assets to GDP ratio.
5	Brazil, Russia	Financial closeness with high interest and inflation and strong preference for liquidity	Highest interest and inflation rates, highest liquid assets to deposits and short-term funding, less open capital account ( $> 4$ ). Not significant: higher central bank assets to GDP ratio ( $< 2$ ), smaller bank regulatory capital to risk-weighted assets ratio ( $> 4$ ).

Table A10: Countries distribution across clusters and characterization for the monetary regime.

## 4 The wage-labour nexus

### 4.1 Sources and raw data

Table A11 indicates the variables modelling the wage-labour nexus and their sources. When not available from Ameco, the wage share was computed using OECDStat data as  $W/(GDP-T) \times 100$  with  $W$  the compensation of employees and  $T$  the taxes minus subventions on production and imports, to have the wage share at factor costs. Following Husson (2010), the distributed profit share is understood as the difference between the margin rate and the investment rate. It is therefore equal to  $(GOS - GFCF)/GDP \times 100$  with  $GOS$  the gross operating surplus and  $GFCF$  the gross fixed capital formation. Finally, the collective bargaining coverage rate for India was missing and imputed by 0 because the imputation algorithm gave a negative value, which is impossible. However, even if the imputed value was inconsistent it indicated the reliability of this imputation methodology as collective bargaining coverage is extremely weak in India.

Name	Variable	Source
Wshare	Wage share	Ameco and author's own calculation from OECDStat data for Chile, Brazil, China, India, Russia, South Africa and Israel. 2015 except for Australia and New Zealand (2014), Brazil (2011), Chile, Russia, South Africa, South Korea (2013), China, Israel, Mexico (2012), India (2009) and Turkey (2006).
DistProf	Distributed profit share	Author's own calculation from OECDStat data. 2015 except for 2015 except for Australia, Chile, Japan, Mexico, New Zealand, Poland, Russia, South Africa, South Korea, Switzerland, United States (2013), Brazil (2011), China, Israel (2012), India (2009) and Turkey (2006).
Labprotec	Strictness of employment protection – individual and collective dismissals (regular contracts)	OECDStat, 2013 except for Brazil, China, India, Russia, South Africa (2012), and Slovenia and United Kingdom (2014)
CollBarg	Collective bargaining coverage rate	ILOStat; 2015 except Australia, Brazil, France, Hungary, Ireland, Norway, Switzerland (2014), China, Russia (2013) and New Zealand (2011).
Unions	Union density rate	ILOStat; 2015 except except Greece (2013), India (2011) and Ireland (2012).
Unemp	Unemployment rate	WDI, World Bank
Gini	Gini coefficient after tax, after transfers	OECDStat; 2015 for all countries except for Austria, Denmark, Germany, Hungary, Ireland, Italy, Mexico, New Zealand, Switzerland (2014), Brazil (2013), Russia (2011).
WorkingHours	Weekly working hours	ILOStat ; 2015 except for China (2008), India (2006) and South Korea (2012).
Gender	Gender wage gap (%)	OECDStat, ILOStat for Brazil and Russia, Chi and Li (2014) for China, Varkkey and Korde (2013) for India and author's own calculations based on Statistics South Africa (2016) for South Africa. 2015 except for Brazil, Estonia, Germany, Italy, Netherlands, Poland, Slovenia, Spain, Switzerland and Turkey (2014), Sweden and India (2013) and China (2009).

Table A11: Variables and sources for the wage-labour nexus.

Country	Wshare	DistProf	Labprotc	CollBarg	Unions	Unemp	Gini	WorkingHours	Gender
Australia	55.8	15.0	1.9	50.6	15.0	6.1	0.3	34.0	13.0
Austria	63.7	16.8	2.4	98.0	27.4	5.7	0.3	35.0	17.0
Belgium	66.8	15.9	3.0	96.0	54.2	8.5	0.3	35.0	4.7
Brazil	50.3	21.1	1.7	70.5	19.5	8.4	0.5	39.0	16.0
Canada	63.4	16.0	1.5	30.6	28.6	6.9	0.3	35.0	18.6
Chile	44.8	25.3	1.8	17.6	17.9	6.5	0.5	42.0	21.1
China	56.7	-9.0	3.0	40.6	44.9	4.6	0.5	45.0	43.0
Czechia	51.7	26.1	2.7	46.3	12.0	5.1	0.3	38.0	16.5
Denmark	66.1	14.1	2.3	84.0	68.6	6.2	0.3	34.0	5.8
Estonia	61.0	13.0	2.1	18.6	4.5	6.2	0.3	28.0	28.3
Finland	64.5	17.6	2.2	89.3	66.5	9.4	0.3	35.0	18.1
France	67.0	12.2	2.8	98.5	7.9	10.4	0.3	35.0	9.9
Germany	62.8	19.2	2.8	56.8	17.6	4.6	0.3	35.0	15.8
Greece	57.4	41.5	2.4	16.7	23.0	24.9	0.3	38.0	6.3
Hungary	55.8	18.9	2.1	22.8	9.4	6.8	0.3	38.0	9.5
India	30.4	34.3	2.6	0.0	12.8	3.5	0.5	47.0	24.8
Ireland	45.3	33.8	2.1	33.5	26.5	4.6	0.3	34.0	14.4
Israel	53.0	20.4	2.2	50.0	25.0	5.3	0.4	36.0	19.3
Italy	61.6	30.2	2.9	80.0	35.7	11.9	0.3	35.0	5.6
Japan	64.7	18.7	2.1	16.8	17.4	3.3	0.3	39.0	25.7
Mexico	38.6	46.8	2.6	9.8	12.9	4.3	0.5	46.0	16.7
Netherlands	65.9	21.9	2.9	79.4	17.7	6.9	0.3	31.0	14.1
New Zealand	54.8	21.6	1.0	15.3	17.9	5.4	0.3	33.0	7.9
Norway	56.2	20.7	2.3	67.0	52.5	4.3	0.3	34.0	7.1
Poland	54.0	32.9	2.4	17.2	12.1	7.5	0.3	40.0	11.1
Portugal	59.3	28.8	2.7	72.3	16.3	12.4	0.3	39.0	18.9
Russia	64.0	8.6	2.5	22.8	30.5	5.6	0.4	40.0	24.4
Slovakia	49.4	31.5	2.3	24.4	11.2	11.5	0.3	38.0	13.4
Slovenia	70.4	17.3	2.4	67.5	25.1	9.0	0.3	39.0	5.0
South Africa	51.9	22.1	2.0	29.1	27.4	25.2	0.6	43.0	23.0
South Korea	67.3	16.8	2.2	11.8	10.1	3.6	0.3	37.2	11.5
Spain	60.7	24.4	2.4	76.9	13.9	22.1	0.3	36.0	13.4
Sweden	62.7	8.6	2.5	90.0	67.0	7.4	0.3	35.0	16.9
Switzerland	68.8	14.9	2.1	49.2	15.7	4.8	0.3	36.0	6.9
Turkey	39.0	38.7	2.3	5.6	8.0	10.2	0.4	48.0	17.1
United Kingdom	64.4	19.8	1.6	27.9	24.7	5.3	0.4	36.0	18.9
United States	61.6	23.0	1.2	11.8	10.6	5.3	0.4	37.0	18.9

Table A12: Data for the wage-labour nexus.

## 4.2 Principal components analysis

The first two dimensions of PCA express 56.72% of the total inertia contained in the dataset. This value exceeds 41.41% that is the reference value of the 0.95-quantile of the inertia percentages distribution obtained by simulating 1099 data tables of equivalent size on the basis of a normal distribution. The variability explained by this plane is thus significant. The first three axis present an amount of inertia greater than those obtained by the 0.95-quantile of random distributions (71.63% against 55.92%). I therefore kept these axes for the analysis.

Axis 1 distinguishes countries sharing high values *DistProf*, *WorkingHours* and *Gini* and low values *Wshare*, *CollBarg* and *Unions* from countries with high values for the variables *CollBarg*, *Wshare* and *Unions* and low values for the variables *WorkingHours*, *Gini* and *Gender*. The second axis opposes countries with high values for *Gender* and low values for *DistProf* to countries with high values for the variables *DistProf*, *WorkingHours* and *Gini* and low values for *Wshare*, *CollBarg* and *Unions*. The third axis opposes countries exhibiting high values for the variables *Gini*, *Unemp* and *WorkingHours* and low values for *Wshare* to countries with low values for *Labprotec* and *WorkingHours*.

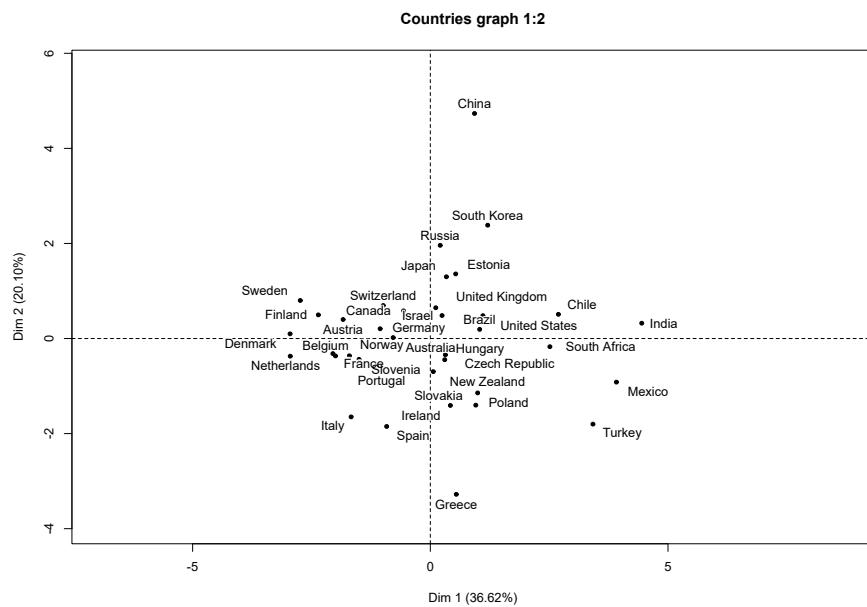


Figure A9: Projection of the countries on the factorial plan of the axes 1 and 2 for the wage-labour nexus.

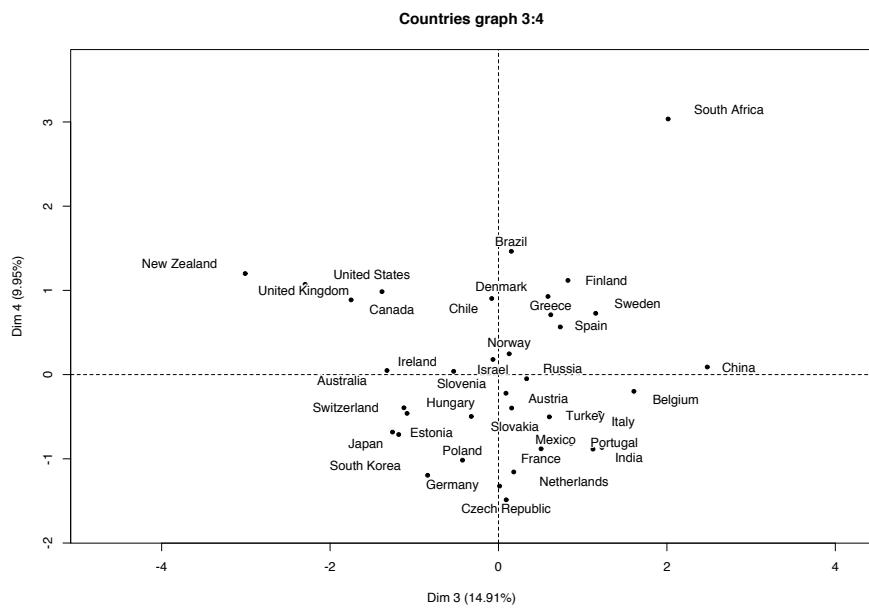


Figure A10: Projection of the countries on the factorial plan of the axes 3 and 4 for the wage-labour nexus.

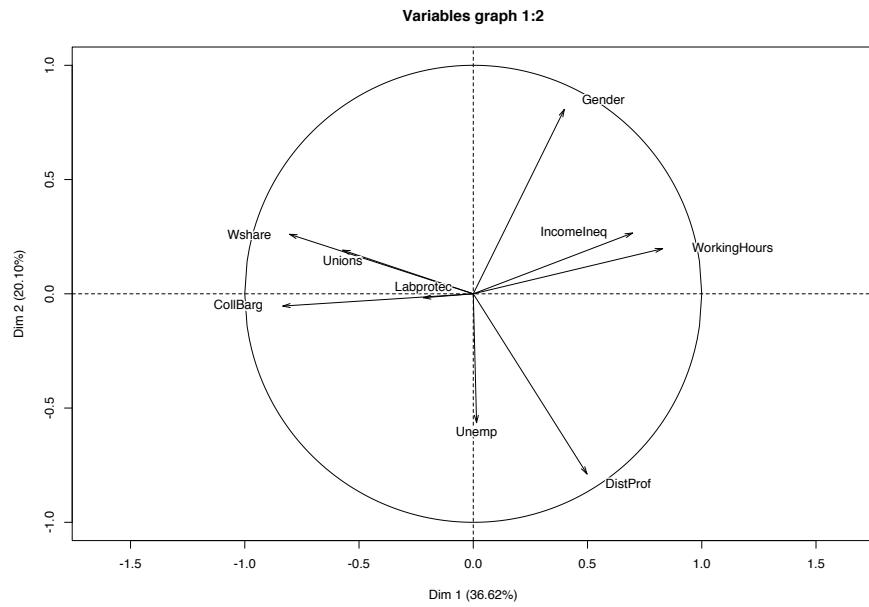


Figure A11: Projection of the variables on the factorial plan of the axes 1 and 2 for the wage-labour nexus.

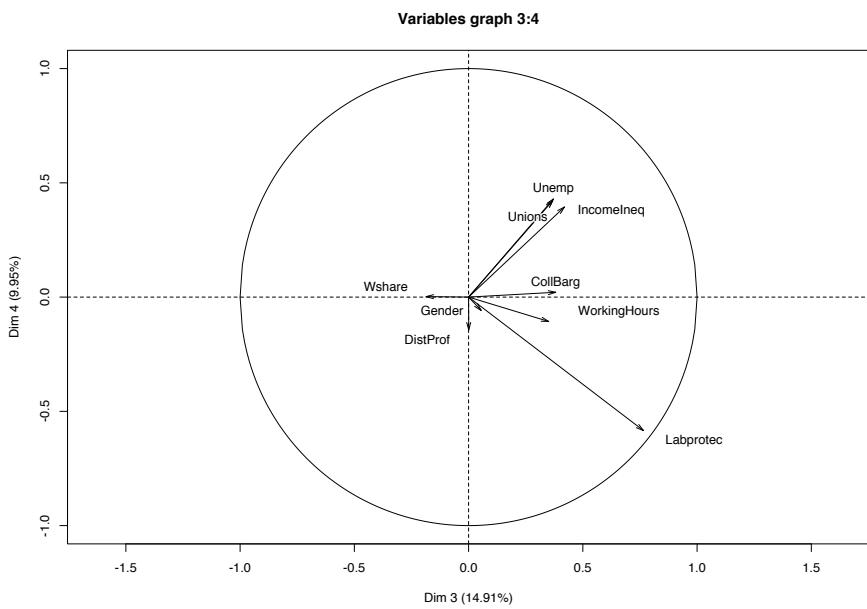


Figure A12: Projection of the variables on the factorial plan of the axes 3 and 4 for the wage-labour nexus.

	Coordinates			Square cosine			Contributions		
	Dim. 1	Dim. 2	Dim. 3	Dim. 1	Dim. 2	Dim. 3	Dim. 1	Dim. 2	Dim. 3
<b>Wshare</b>	-0.80	0.26	-0.19	0.65	0.07	0.04	19.61	3.75	2.58
<b>DistProf</b>	0.50	-0.79	0.00	0.25	0.62	0.00	7.53	34.39	0.00
<b>Labprotec</b>	-0.22	-0.02	0.77	0.05	0.00	0.59	1.45	0.02	43.68
<b>CollBarg</b>	-0.83	-0.05	0.38	0.70	0.00	0.15	21.09	0.16	10.83
<b>Unions</b>	-0.57	0.19	0.42	0.33	0.04	0.18	9.91	2.02	13.13
<b>Unemp</b>	0.01	-0.56	0.37	0.00	0.32	0.14	0.01	17.59	10.27
<b>Gini</b>	0.70	0.27	0.37	0.49	0.07	0.14	14.75	3.91	10.11
<b>WorkingHours</b>	0.83	0.20	0.35	0.69	0.04	0.12	20.85	2.16	9.18
<b>Gender</b>	0.40	0.81	0.06	0.16	0.65	0.00	4.82	36.00	0.23
<b>Australia</b>	-0.78	0.02	-1.33	0.21	0.00	0.59	0.50	0.00	3.53
<b>Austria</b>	-1.84	0.40	0.16	0.70	0.03	0.01	2.76	0.24	0.05
<b>Belgium</b>	-2.95	-0.37	1.61	0.71	0.01	0.21	7.12	0.21	5.21
<b>Brazil</b>	1.04	0.19	0.15	0.17	0.01	0.00	0.88	0.06	0.05
<b>Canada</b>	-0.56	0.58	-1.75	0.07	0.07	0.64	0.26	0.51	6.17
<b>Chile</b>	2.69	0.51	-0.08	0.80	0.03	0.00	5.95	0.39	0.01
<b>China</b>	0.93	4.73	2.48	0.03	0.74	0.20	0.71	33.48	12.38
<b>Czechia</b>	0.32	-0.34	0.09	0.04	0.04	0.00	0.08	0.18	0.02
<b>Denmark</b>	-2.95	0.10	0.59	0.69	0.00	0.03	7.14	0.01	0.70
<b>Estonia</b>	0.53	1.36	-1.26	0.05	0.32	0.27	0.23	2.76	3.19
<b>Finland</b>	-2.36	0.50	0.82	0.56	0.03	0.07	4.55	0.37	1.37
<b>France</b>	-2.05	-0.32	0.51	0.48	0.01	0.03	3.44	0.15	0.52
<b>Germany</b>	-1.06	0.21	0.01	0.34	0.01	0.00	0.91	0.06	0.00
<b>Greece</b>	0.55	-3.28	0.62	0.02	0.65	0.02	0.25	16.05	0.78
<b>Hungary</b>	0.30	-0.45	-1.09	0.04	0.08	0.44	0.08	0.30	2.38
<b>India</b>	4.45	0.32	1.23	0.82	0.00	0.06	16.22	0.16	3.04
<b>Ireland</b>	0.42	-1.41	-0.53	0.04	0.40	0.06	0.15	2.96	0.57
<b>Israel</b>	0.25	0.48	-0.07	0.04	0.17	0.00	0.05	0.35	0.01
<b>Italy</b>	-1.67	-1.65	1.20	0.38	0.37	0.20	2.28	4.06	2.91
<b>Japan</b>	0.34	1.30	-1.19	0.03	0.38	0.31	0.09	2.52	2.83
<b>Mexico</b>	3.91	-0.92	1.12	0.73	0.04	0.06	12.57	1.26	2.54
<b>Netherlands</b>	-2.00	-0.37	0.18	0.54	0.02	0.00	3.27	0.20	0.07
<b>New Zealand</b>	0.06	-0.70	-3.01	0.00	0.04	0.76	0.00	0.73	18.23
<b>Norway</b>	-1.70	-0.36	0.13	0.47	0.02	0.00	2.38	0.20	0.03
<b>Poland</b>	1.00	-1.14	-0.43	0.25	0.33	0.05	0.81	1.96	0.37
<b>Portugal</b>	-0.27	-0.71	0.86	0.02	0.14	0.21	0.06	0.75	1.50
<b>Russia</b>	0.21	1.96	0.33	0.01	0.78	0.02	0.04	5.74	0.23
<b>Slovakia</b>	0.96	-1.40	-0.32	0.24	0.52	0.03	0.75	2.94	0.21
<b>Slovenia</b>	-1.50	-0.44	0.09	0.46	0.04	0.00	1.84	0.29	0.02
<b>South Africa</b>	2.52	-0.17	2.01	0.28	0.00	0.18	5.19	0.04	8.17
<b>South Korea</b>	1.21	2.38	-0.84	0.11	0.44	0.06	1.20	8.49	1.43
<b>Spain</b>	-0.92	-1.85	0.73	0.09	0.36	0.06	0.69	5.11	1.08
<b>Sweden</b>	-2.74	0.80	1.15	0.65	0.06	0.12	6.14	0.96	2.69
<b>Switzerland</b>	-0.99	0.69	-1.12	0.29	0.14	0.38	0.81	0.72	2.54
<b>Turkey</b>	3.42	-1.80	0.60	0.66	0.18	0.02	9.60	4.85	0.73
<b>United Kingdom</b>	0.12	0.65	-1.38	0.00	0.11	0.49	0.01	0.63	3.86
<b>United States</b>	1.11	0.48	-2.30	0.15	0.03	0.63	1.00	0.35	10.62

Table A13: Detailed results for the PCA applied to the variables of the wage-labour nexus.

### 4.3 Clustering

As indicated by figures A13 and A14, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying a clustering in five classes and the inertia gains are still substantial. Table A14 indicates which variables characterize the most each of the clusters. Table A15 indicates the distribution of countries across clusters and provides a synthesis of each cluster characteristics.

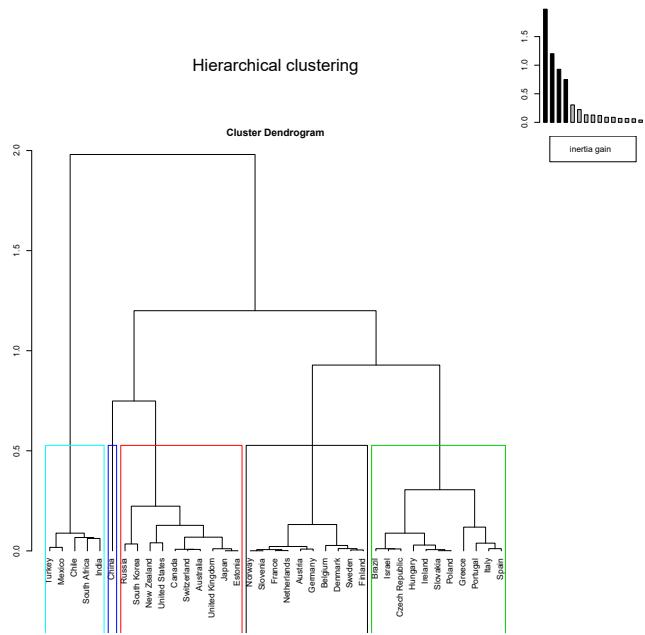


Figure A13: Hierarchical tree for the clustering of countries through their wage-labour nexus.

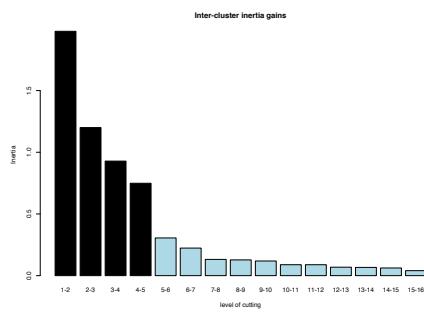


Figure A14: Hierarchical tree for the clustering of countries through their wage-labour nexus.

	v.test	p.value	1	Cat mean.	Overall mean	v.test	p.value	2	Cat mean.	Overall mean	v.test	p.value	3	Cat mean.	Overall mean
CollBarg	4.72	0.00	82.41	45.82	-2.21	0.03	30.67	45.82	-0.46	0.65	41.04	45.82			
DistProf	-1.52	0.13	17.68	21.61	-1.78	0.07	17.52	21.61	2.77	0.01	31.29			21.61	
Gender	-2.57	0.01	10.59	16.13	1.74	0.08	19.45	16.13	-1.02	0.31	13.16			16.13	
Gini	-2.30	0.02	0.30	0.35	-0.13	0.89	0.35	0.35	0.35	0.35	0.99			0.30	
Labprotec	2.71	0.01	2.59	2.27	-3.90	0.00	1.86	2.27	0.99	0.32	2.43			0.35	
Unemp	-0.42	0.68	7.66	8.23	-2.19	0.03	5.62	8.23	2.77	0.01	13.27			8.23	
Unions	3.55	0.00	40.02	24.54	-1.80	0.07	17.61	24.54	-1.38	0.17	16.43			24.54	
WorkingHours	-2.96	0.00	34.82	37.89	-0.64	0.53	37.31	37.89	-0.23	0.82	37.57			37.89	
Wshare	2.85	0.00	64.34	57.70	1.41	0.16	60.61	57.70	-1.19	0.24	53.97			57.70	
			4					5							
CollBarg	-0.17	0.86	40.60	45.82	-2.62	0.01	12.42								
DistProf	-3.03	0.00	-9.00	21.61	2.78	0.01	33.44								
Gender	3.19	0.00	43.00	16.13	0.67	0.51	18.50								
Gini	1.83	0.07	0.50	0.35	4.35	0.00	0.50							0.35	
Labprotec	1.68	0.12	3.00	2.27	-0.05	0.96	2.26							2.27	
Unemp	-0.69	0.49	4.60	8.23	0.77	0.44	9.94							8.23	
Unions	1.20	0.23	44.90	24.54	-1.22	0.22	15.80							24.54	
WorkingHours	1.75	0.08	45.00	37.89	4.27	0.00	45.20							37.89	
Wshare	-0.11	0.91	56.70	57.70	-4.37	0.00	40.94							57.70	

Table A14: Detailed results for the clustering of the wage-labour nexus.

Cluster	Countries	Characterization	Details
1	Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Slovenia, Sweden	Labour protective, wage-oriented value added distribution, low working time and low income inequality	Highest rate of collective bargaining coverage and higher rate of union density ( $< 4$ ), highest wage share in value added, stricter employment protection ( $< 4$ ); lowest Gini ( $= 4$ ) and gender wage gap, lowest working hours. Not significant: smaller unemployment rate ( $> 2$ and 4), lower distributed profit rate ( $> 2$ and 4)
2	Australia, Brazil, Canada, Estonia, Hungary, Israel, Japan, New Zealand, Russia, South Korea, Switzerland, UK, USA	Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality	Higher gender wage gap ( $< 4$ ); lower distributed profit rate ( $> 4$ ), lower rates of union density ( $> 3$ and 5), collective bargaining coverage ( $> 5$ ) and unemployment ( $> 4$ ) and loosest employment protection. Not significant: higher wage share ( $< 1$ ); lower Gini ( $> 1$ and 3) and lower working hours ( $> 1$ ).
3	Czechia, Greece, Ireland, Poland, Portugal, Slovakia, Spain	Profit-oriented value added distribution, high unemployment and low income inequality	Higher distributed profit rate ( $< 5$ ) and highest unemployment rate; lowest Gini. Not significant: stricter employment protection ( $< 1$ and 4), lower working hours ( $> 1$ and 2), lower rates of collective bargaining ( $> 2$ , 4 and 5) and unionization ( $> 5$ ), smaller gender wage gap ( $> 1$ ) and wage share in value added ( $> 5$ ).
4	China	Oriented towards profit re-investment rather than distribution, high working time and high income inequality	Highest gender wage gap and Gini ( $= 5$ ), highest working hours ( $< 5$ ); lowest distributed profit rate. Non significant: strictest employment protection, highest rate of unionization, lower wage share ( $> 3$ and 5), smaller rate of collective bargaining coverage ( $> 2$ and 5) and lowest unemployment rate.
5	Chile, India, Mexico, South Africa, Turkey	Labour market flexibility capital-oriented value added distribution, high working time and high income inequality	Highest Gini ( $= 4$ ), working hours and distributed profit rate; lowest collective bargaining coverage rate and wage share in value added. Not significant: higher unemployment ( $< 3$ ) and gender wage gap ( $< 2$ and 4), looser employment protection ( $< 2$ ) and lowest unionization rate

Table A15: Countries distribution across clusters and characterization for the wage-labour nexus.

## 5 The form of competition

### 5.1 Sources and raw data

Name	Variable	Source
ABC	Administrative burdens for corporation	
ABP	Administrative burdens for sole proprietor firms	
ATX	Antitrust exemption for public enterprises	
BEN	Entry barriers in 8 network sectors (gas, electricity, water, rail transport, air transport, road freight transport, postal services and telecommunication) and degree of vertical separation in 3 network sectors (gas, electricity and rail transport).	
BSS	Entry barriers in professional services, freight transport services and retail distribution.	
CCR	Command and control regulation	
CSR	Communication and simplification of rules and procedures	
DCB	Direct state control over enterprises (based on 30 business sectors).	
FDI	Barriers to FDI in 22 sectors in terms of foreign equity limitations, screening or approval mechanisms, restrictions on the employment of foreigners as key personnel and operational restrictions	Koske et al. (2015). For regulations indicators:index 0 to 6 from the least to the most restrictive regulation. For market structure indicator: index 0 to 6 from atomistic competition to monopoly.
GIN	Government involvement in network sectors in 6 network sectors (electricity, gas, rail transport, air transport, postal services and telecommunication).	
GOV	Governance of state-owned enterprises: degree of insulation of state-owned enterprises (SOEs) from market discipline and degree of political interference in the management of SOEs.	
LBR	Legal barriers to entry in 30 business sectors	
LPS	Licences and permits system	
PCT	Price controls in 8 sectors (air transport, road freight transport, retail distribution, telecommunication, electricity, gas, water, professional services).	
SCP	Scope of state-owned enterprises	
TFS	Differential treatment of foreign suppliers	
TRD	Barriers to trade facilitation	
TRF	Tariff barriers	
Telec_struc, Gas_struc, Rail_struc Hstat	Elec_struc, Post_struc,	Market structure of telecom, electricity, gas, post and rail sectors
LernerIndex		H-statistic. It measures the elasticity of banks revenues relative to input prices. 1 = perfect competition ; <= 0 = monopoly ; 0 to 1 = monopolistic competition ; > 1 = oligopolistic competition Lerner Index. It measures the market power in the banking market as the difference between output prices and marginal costs (relative to prices). Higher values of the Lerner index indicate less bank competition.
		Global Financial Development Database, World Bank, 2015 for all countries except concerning Lerner index for Australia, Estonia, Finland, Greece, Ireland and South Korea (2010), Japan (2014), New Zealand (2011) and Portugal and South Africa (2013).

Table A16: Variables and sources for the form of competition.

Country	SCP	GIN	DGB	GOV	PCT	CCR	ABC	ABP	ESS	LPS	CSR	LBR	ATX	BEN	FDI	TRF	TFS	TRD
Australia	2.85	2.17	1.03	5.63	0.84	1.08	0.80	1.15	4.00	0.55	1.47	1.43	2.75	0.77	0.00	0.00	0.00	
Austria	3.00	2.78	1.03	2.25	0.37	1.78	1.80	0.20	4.04	2.00	0.05	0.20	2.47	0.63	0.00	0.35	1.40	
Belgium	2.60	2.59	1.16	2.92	2.20	1.40	2.20	1.00	4.40	0.94	1.50	2.52	2.44	0.00	0.50	0.00	0.00	
Brazil	2.64	1.77	2.29	4.00	2.53	2.17	3.60	2.00	3.43	6.00	1.57	2.07	0.00	3.44	0.61	4.00	0.80	
Canada	2.60	1.92	0.59	3.75	1.95	1.30	0.00	0.20	3.75	2.00	0.57	0.69	0.65	1.04	0.00	1.84	1.17	
Chile	2.47	1.79	0.96	3.75	2.39	1.50	1.20	0.80	1.37	6.00	1.50	0.47	0.00	3.11	0.34	0.00	1.26	
China	6.00	4.44	3.16	3.00	3.06	2.90	4.20	4.60	3.53	4.67	2.63	0.93	0.00	3.94	2.74	2.00	1.59	
Czechia	3.22	3.31	0.63	4.50	0.94	1.16	1.80	0.80	3.72	4.00	0.97	0.20	0.00	2.39	0.06	0.00	1.50	
Denmark	2.30	2.76	0.52	5.63	0.63	1.45	1.20	0.00	2.69	2.00	0.57	0.80	0.57	2.22	0.20	0.00	0.40	
Estonia	1.80	3.72	0.41	1.50	0.60	2.10	1.60	0.60	3.28	4.00	0.11	0.21	0.00	2.17	1.01	0.00	1.72	
Finland	3.11	3.03	2.70	3.00	0.91	1.70	1.20	2.83	2.67	0.59	0.90	0.00	2.89	0.11	0.00	0.69	0.00	
France	4.34	3.67	2.67	2.25	0.59	2.43	2.00	0.60	3.89	2.00	1.15	1.14	0.00	2.81	0.57	0.00	0.43	
Germany	2.80	1.58	1.53	4.88	0.87	1.11	1.00	0.20	3.55	2.67	1.33	0.40	1.40	2.34	0.14	0.00	1.00	
Greece	3.40	2.86	1.37	3.75	3.00	2.58	1.80	1.40	3.91	4.00	0.15	1.10	0.90	2.79	0.19	0.00	1.28	
Hungary	3.28	2.22	0.88	3.00	1.25	2.26	2.40	1.40	4.25	0.67	1.13	1.45	0.82	2.22	0.00	0.59	1.20	
India	5.38	4.19	2.44	6.00	2.91	4.18	4.80	4.20	3.21	6.00	3.29	0.96	1.34	3.99	1.58	2.50	0.50	
Ireland	2.20	3.85	2.40	3.75	1.19	1.21	1.40	0.20	5.33	5.33	1.40	0.00	2.50	0.00	0.26	0.00	0.32	
Israel	3.25	3.27	1.55	3.75	2.32	3.45	1.60	1.00	3.93	5.33	1.42	1.93	0.00	0.72	0.00	0.00	0.72	
Italy	4.00	2.28	1.90	2.63	1.19	2.29	1.60	0.20	4.62	0.67	0.38	0.48	0.00	2.56	0.31	0.00	1.28	
Japan	2.13	1.63	1.85	3.00	2.34	0.76	1.20	0.00	3.41	2.67	1.00	1.07	0.53	3.34	0.00	0.55	1.00	
Mexico	2.95	2.75	0.91	3.75	2.34	0.54	1.60	2.60	3.09	2.67	0.15	1.37	2.95	3.83	1.24	1.50	1.56	
Netherlands	1.90	1.97	0.67	1.50	1.16	1.35	1.40	0.00	4.25	2.00	0.16	1.15	0.00	2.62	0.09	0.10	1.28	
New Zealand	2.90	3.15	1.27	4.50	1.19	1.15	0.20	0.20	2.36	2.00	0.59	0.20	0.73	3.08	1.74	0.00	0.35	
Norway	4.15	3.60	0.96	4.50	0.69	1.23	1.40	0.00	3.33	3.33	0.79	1.97	0.00	3.02	0.51	0.00	1.00	
Poland	5.65	4.00	3.30	4.50	1.81	1.72	2.40	1.00	4.34	2.67	0.06	0.20	0.00	2.69	0.43	0.00	0.55	
Portugal	3.00	3.17	0.92	2.63	0.97	1.80	2.00	3.63	0.00	0.82	1.92	0.00	0.04	1.92	0.00	1.08	0.28	
Russia	5.40	3.72	2.87	3.75	3.42	2.36	1.60	1.20	5.00	2.67	1.00	1.57	1.35	2.68	1.39	1.50	2.63	
Slovakia	2.40	3.47	1.00	3.75	1.34	2.01	1.60	0.80	3.86	0.00	0.91	0.40	0.00	2.31	0.29	0.00	1.50	
Slovenia	3.72	5.00	1.59	0.75	1.08	3.40	2.20	0.40	3.31	4.67	0.00	0.90	0.00	2.47	0.04	0.00	1.63	
South Africa	3.59	4.20	0.89	4.88	3.13	2.58	1.00	0.40	3.34	4.00	1.53	0.90	1.12	0.33	1.50	2.30	1.22	
South Korea	2.10	2.37	0.91	5.25	3.09	1.47	1.80	0.80	3.01	4.00	1.21	0.53	0.00	3.47	0.86	2.50	0.27	
Spain	3.50	1.73	1.32	0.75	0.63	3.15	1.60	1.40	4.01	4.67	0.99	1.30	0.00	2.14	0.13	0.00	1.00	
Sweden	3.80	2.99	1.76	5.25	0.38	1.63	1.40	1.00	1.94	4.67	0.87	0.80	0.00	1.95	0.35	0.00	1.80	
Switzerland	3.60	4.28	1.96	5.25	1.63	1.54	1.40	0.40	1.87	3.33	0.38	1.57	0.00	3.23	0.50	0.00	0.80	
Turkey	4.45	4.15	1.86	3.75	3.47	3.18	2.60	2.60	4.04	6.00	0.97	1.37	0.00	3.95	0.36	0.00	1.14	
United Kingdom	1.40	0.67	1.98	4.50	0.97	1.04	0.80	0.20	3.07	4.67	0.25	0.60	0.35	0.97	0.37	0.00	0.13	
United States	2.90	0.58	3.00	5.63	2.56	2.19	0.60	0.60	3.02	2.00	0.26	0.47	2.90	2.99	0.53	0.00	1.34	

Table A17: Regulation indicators data for the form of competition.

<b>Country</b>	<b>Telec_struc</b>	<b>Elec_struc</b>	<b>Gas_struc</b>	<b>Post_struc</b>	<b>Rail_struc</b>	<b>Hstat</b>	<b>LernerIndex</b>
Australia	1.60	0.00	0.00	3.00	3.00	0.31	0.17
Austria	1.36	0.00	1.50	2.00	0.00	0.71	0.55
Belgium	1.51	1.50	0.00	2.00	3.00	0.68	0.17
Brazil	1.93	0.00	6.00	3.00	6.00	0.74	0.01
Canada	1.57	3.00	0.00	2.00	1.50	0.81	0.39
Chile	1.30	0.00	0.75	1.00	4.50	0.81	0.4
China	0.00	3.75	0.00	2.00	6.00	0.57	0.26
Czechia	1.34	0.75	3.00	1.00	0.00	0.61	0.42
Denmark	1.40	0.75	1.50	3.00	1.50	0.48	0.5
Estonia	1.74	3.75	4.50	4.00	3.00	0.7	0.24
Finland	0.98	0.00	6.00	6.00	4.50	0.77	0.09
France	1.25	3.00	3.00	3.00	3.00	0.67	0.4
Germany	1.47	0.00	0.00	3.00	0.00	0.88	-0.2
Greece	1.38	3.75	6.00	4.00	6.00	0.91	0.21
Hungary	1.94	0.00	2.25	4.00	3.00	0.61	0.33
India	1.03	0.00	2.25	4.00	3.00	0.63	0.22
Ireland	1.51	0.00	1.50	3.00	6.00	0.07	0.27
Israel	1.34	6.00	4.50	2.00	6.00	0.53	0.34
Italy	1.25	0.00	0.75	4.00	0.00	0.87	0.58
Japan	1.91	0.00	3.00	2.00	4.50	0.44	0.39
Mexico	1.88	5.25	6.00	0.00	6.00	0.75	0.72
Netherlands	1.36	0.00	0.75	2.00	3.00	0.69	0.21
New Zealand	1.63	0.00	1.50	4.00	6.00	0.28	0.24
Norway	1.61	0.00	4.50	4.00	1.50	0.64	0.5
Poland	1.16	0.00	6.00	1.00	0.00	0.66	0.45
Portugal	1.56	1.50	3.00	3.00	4.50	0.75	0.31
Russia						0.72	0.47
Slovakia	1.97	0.75	3.00	2.00	1.50	0.74	0.3
Slovenia	1.61	1.50	3.00	5.00	3.00	0.78	0.17
South Africa	2.35	3.00	6.00	4.50	6.00	0.86	0.23
South Korea	1.50	4.50	6.00	2.00	6.00	0.57	0.34
Spain	1.68	0.00	1.50	2.00	3.00	0.41	0.53
Sweden	1.65	0.00	3.00	4.50	3.00	0.41	0.45
Switzerland	1.67	0.00	3.00	3.00	3.00	0.52	0.42
Turkey	2.26	1.50	3.00	2.00	6.00	0.67	-0.01
United Kingdom	0.80	0.00	0.00	2.00	0.00	0.59	0.06
United States	1.05	0.00	0.00	2.00	4.50	0.46	0.26

Table A18: Market structure indicator data for the form of competition before the statistical imputation of missing values for Russia. Imputed missing values for Russia for *Telec\_struc*, *Elec\_struc*, *Gas\_struc*, *Post\_struc* and *Rail\_struc* are respectively: 1.65, 2.81, 4.24, 2.47 and 5.89

## 5.2 Imputation of missing data

Values for the structure of the electricity, gas, postal and railways sectors are missing for Russia. We imputed them using the MissMDA packages for R (Josse and Husson, 2015) and checked for the quality of the imputation through a comparison of 1000 imputations. As figures A15, A16 and A17 show, the statistical imputation is of very good quality, with little variation in the dimensions, the positions of the countries and of the variables on the first factorial plan. The values for the imputed variables are indicated in the caption of table A18.

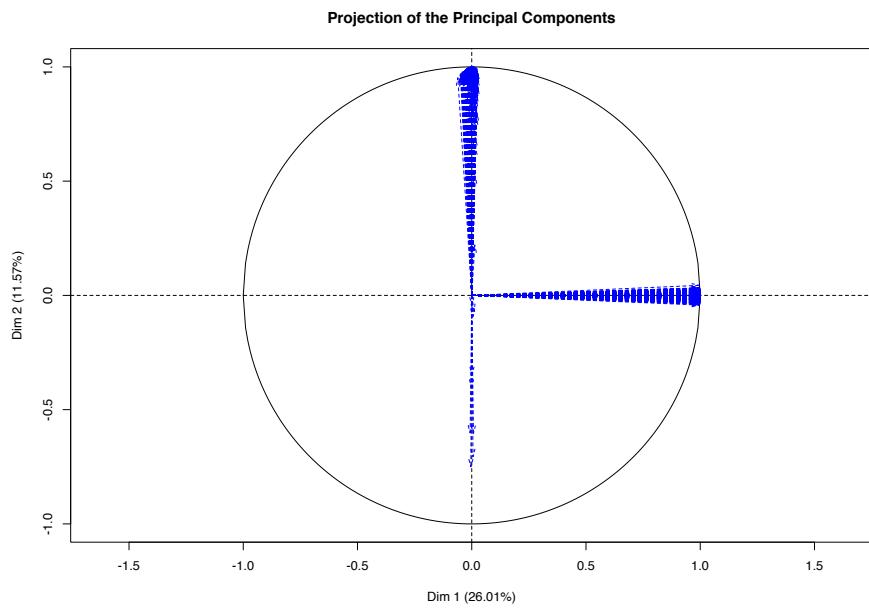


Figure A15: Imputations of missing variables modelling the form of competition: stability of the principal components across multiple imputations.

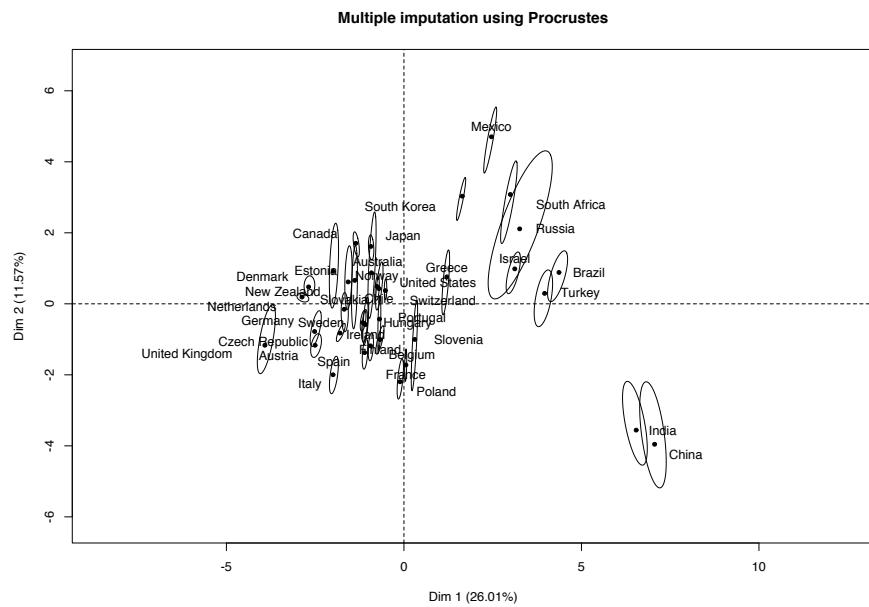


Figure A16: Imputations of missing variables modelling the form of competition: stability of the countries across multiple imputations.

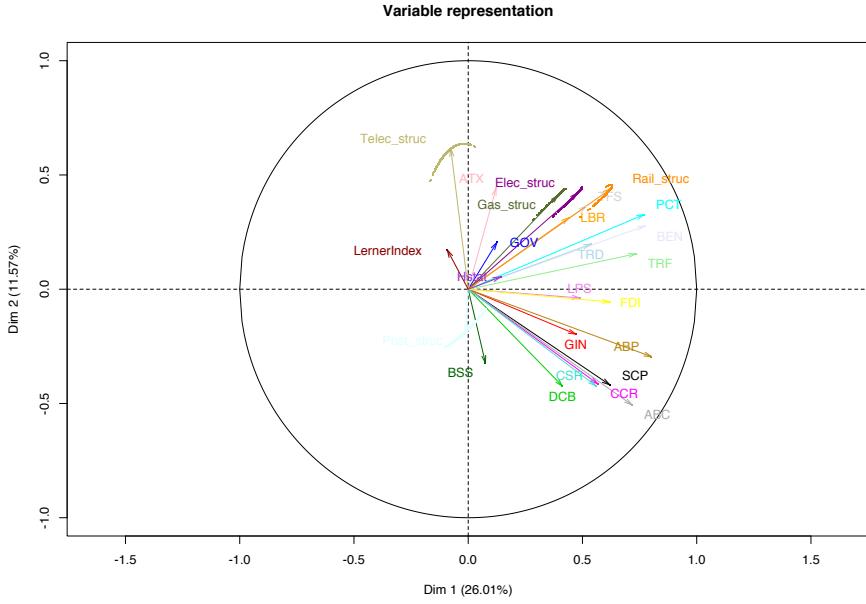


Figure A17: Imputations of missing variables modelling the form of competition: stability of the variables across multiples imputations.

### 5.3 Principal components analysis

The first two dimensions of PCA express 37.58% of the total dataset inertia. This value is greater than the reference value of 23.81%, the variability explained by this plane is thus significant (the reference value is the 0.95-quantile of the inertia percentages distribution obtained by simulating 1000 data tables of equivalent size on the basis of a normal distribution). The first three axes present an amount of inertia (48.51%) greater than those obtained by the 0.95-quantile of random distributions (33.16%). To keep more than 50% of the total inertia, I nonetheless kept also the fourth dimension. The total inertia captured by the first fourth axes is 56.4%. Another reason to keep the fourth axis is to diminish the weight of India and China in the modelling of the form of competition. Indeed, they were found to be outliers. A country is considered an outlier when its contribution to the plane exceeds three standard deviations from the average contribution. Here, the cumulated contribution of India and China to the construction of the plan 1:2 is 34.8%. However, given the importance of those two countries, I decided to keep them in the analysis.

The first axis discriminates between countries with high values for *BSS* and low values for *TFS*, *ABP*, *SCP*, *ABC*, *Elec\_struct*, *Gas\_struct*, *BSS*, *FDI*, *ATX*, *BEN*, *Rail\_struct* and *PCT* and countries with high values for *ABP*, *ABC*, *ATX*, *BEN*, *CCR*, *DCB*, *Elec\_struct*, *Gas\_struct*, *GIN*, *LBR*, *PCT*, *Rail\_struct*, *SCP* and *TFS*. Axis 2 distinguishes countries that have high values for *CSR*, *ABC*, *SCP*, *CCR*, *BEN*, *DCB*, *PCT* and low values for *Telec\_struct* from countries with high values for *Elec\_struct*, *ATX*, *PCT*, *TFS*, *Gas\_struct*, *Rail\_struct*, *BEN*, *LBR*, *CCR*, *Telec\_struct* and low values for *CSR*. The third axis discriminates between countries exhibiting high values for *FDI*, and *DCB* and low values for *Hstat*, *BSS*, *Post\_struct* and *Telec\_struct* and countries with high values for *Gas\_struct*, *CCR*, *Telec\_struct*, *BSS*, *Hstat* and low values for *FDI*, *ATX* and *GOV*. Finally, the fourth axis opposes countries exhibiting high values for *LPS*, *Telec\_struct*, *ATX*, *FDI* and low values for *SCP* and *LernerIndex* to countries with high values for *Elec\_struct*, *ATX*, *TFS*, *LernerIndex* and *FDI* and low values

for *Post\_struct* and *CSR*.

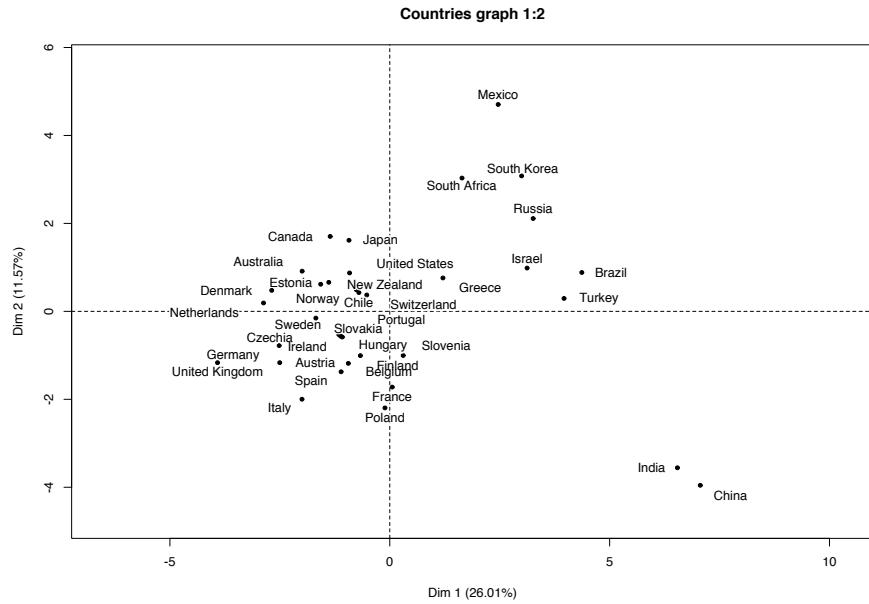


Figure A18: Projection of the countries on the factorial plan of the axes 1 and 2 for the form of competition.

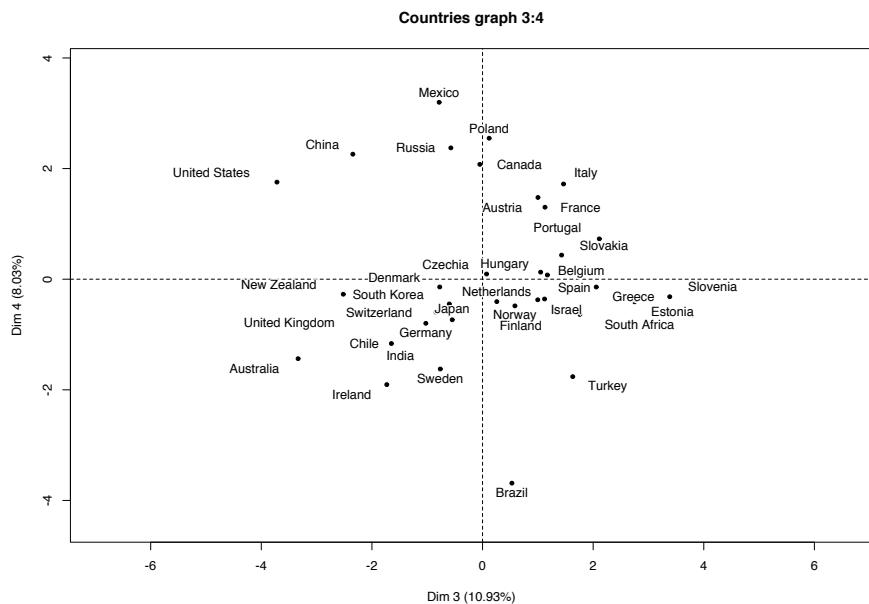


Figure A19: Projection of the countries on the factorial plan of the axes 3 and 4 for the form of competition.

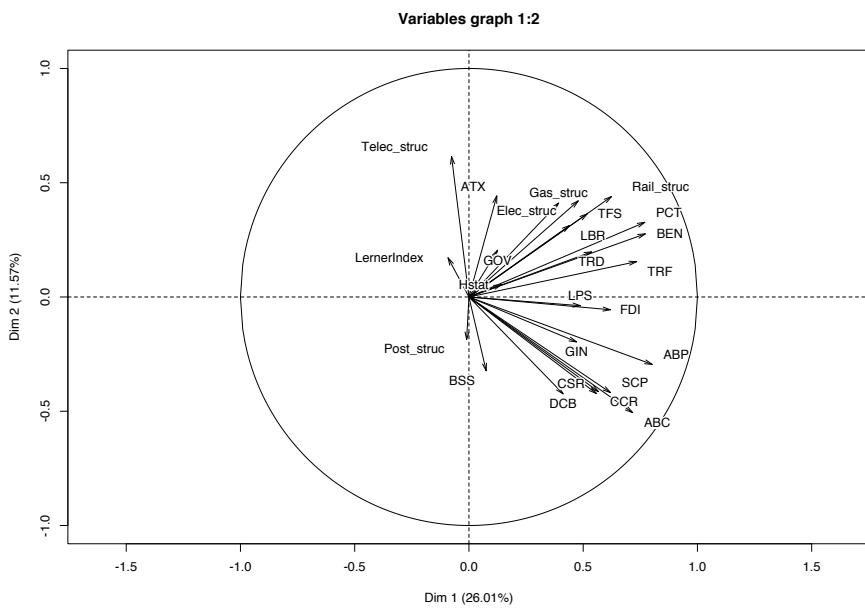


Figure A20: Projection of the variables on the factorial plan of the axes 1 and 2 for the form of competition.

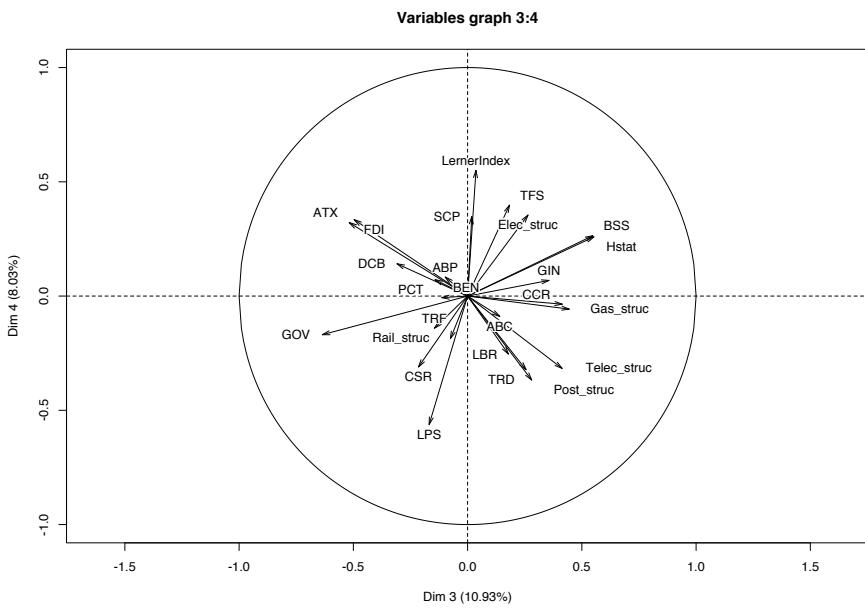


Figure A21: Projection of the variables on the factorial plan of the axes 3 and 4 for the form of competition.

	Coordinates				Square cosines				Contribution			
	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Dim. 1	Dim. 2	Dim. 3	Dim. 4
<b>SCP</b>	0.62	-0.42	0.02	0.35	0.38	0.18	0.00	0.12	5.90	6.05	0.01	6.03
<b>GIN</b>	0.47	-0.20	0.36	0.07	0.22	0.04	0.13	0.01	3.41	1.34	4.64	0.23
<b>DCB</b>	0.41	-0.42	-0.31	0.14	0.17	0.18	0.10	0.02	2.62	6.22	3.49	0.99
<b>GOV</b>	0.13	0.21	-0.64	-0.17	0.02	0.04	0.04	0.03	0.24	1.45	14.79	1.42
<b>PCT</b>	0.77	0.33	-0.14	0.07	0.59	0.11	0.02	0.01	9.11	3.69	0.74	0.26
<b>CCR</b>	0.57	0.41	0.41	-0.04	0.32	0.17	0.17	0.00	4.94	5.93	6.28	0.06
<b>ABC</b>	0.72	-0.51	0.14	-0.09	0.51	0.26	0.02	0.01	7.89	8.85	0.73	0.39
<b>ABP</b>	0.80	-0.30	-0.10	0.08	0.64	0.09	0.01	0.01	9.89	3.01	0.35	0.35
<b>BSS</b>	0.08	-0.32	0.55	0.26	0.01	0.10	0.30	0.07	0.09	3.61	10.97	3.47
<b>LPS</b>	0.49	-0.04	-0.17	-0.56	0.24	0.00	0.03	0.32	3.66	0.05	1.04	15.74
<b>CSR</b>	0.56	-0.42	-0.22	-0.31	0.31	0.18	0.05	0.10	4.78	6.16	1.69	4.79
<b>LBR</b>	0.44	0.31	0.18	-0.25	0.19	0.10	0.03	0.06	2.98	3.38	1.17	3.21
<b>ATX</b>	0.12	0.44	-0.52	0.32	0.02	0.20	0.27	0.10	0.23	6.77	9.83	5.15
<b>BEN</b>	0.77	0.28	-0.11	-0.01	0.60	0.08	0.01	0.00	9.16	2.64	0.47	0.00
<b>FDI</b>	0.62	-0.06	-0.50	0.34	0.38	0.00	0.25	0.11	5.90	0.11	9.02	5.58
<b>TRF</b>	0.73	0.16	-0.15	-0.14	0.54	0.02	0.02	0.02	8.28	0.83	0.77	0.99
<b>TFS</b>	0.52	0.36	0.18	0.40	0.27	0.13	0.03	0.16	4.12	4.57	1.23	7.89
<b>TRD</b>	0.54	0.20	0.26	-0.32	0.29	0.04	0.07	0.10	4.43	1.35	2.40	5.17
<b>Telec_struct</b>	-0.08	0.61	0.41	-0.32	0.01	0.38	0.17	0.10	0.09	13.05	6.26	4.99
<b>Elec_struct</b>	0.48	0.42	0.26	0.36	0.23	0.18	0.07	0.13	3.52	6.12	2.56	6.26
<b>Gas_struct</b>	0.39	0.41	0.45	-0.06	0.15	0.17	0.20	0.00	2.37	5.84	7.24	0.16
<b>Post_struct</b>	-0.01	-0.19	0.28	-0.37	0.00	0.04	0.08	0.14	0.00	1.19	2.88	6.72
<b>Rail_struct</b>	0.62	0.44	-0.08	-0.19	0.39	0.19	0.01	0.04	5.98	6.66	0.21	1.73
<b>Hstat</b>	0.14	0.05	0.55	0.26	0.02	0.00	0.31	0.07	0.31	0.10	11.18	3.34
<b>LernerIndex</b>	-0.09	0.17	0.04	0.55	0.01	0.03	0.00	0.30	0.13	1.02	0.05	15.08

Table A19: Detailed results for the PCA applied to the variables of the form of competition, for the variables.

	Coordinates				Square cosines				Contribution			
	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Dim. 1	Dim. 2	Dim. 3	Dim. 4
Australia	-1.99	0.91	-3.34	-1.44	0.16	0.03	0.46	0.09	1.65	0.78	1.100	2.78
Austria	-2.50	-1.17	1.00	1.48	0.38	0.08	0.06	0.13	2.60	1.27	0.99	2.94
Belgium	-0.94	-1.18	1.05	0.13	0.07	0.12	0.09	0.00	0.37	1.31	1.09	0.02
Brazil	4.37	0.88	0.53	-3.69	0.39	0.02	0.01	0.28	7.93	0.73	0.28	18.30
Canada	-1.36	1.70	-0.05	2.08	0.10	0.16	0.00	0.24	0.76	2.72	0.00	5.80
Chile	0.70	0.43	-1.65	-1.16	0.03	0.01	0.14	0.07	0.21	0.17	2.69	1.82
China	7.06	-3.96	-2.35	2.26	0.59	0.19	0.07	0.06	20.72	14.63	5.44	6.88
Czechia	-1.80	-0.82	0.07	0.09	0.22	0.05	0.00	0.00	1.35	0.64	0.01	0.01
Denmark	-2.69	0.48	-0.77	-0.14	0.54	0.02	0.04	0.00	3.00	0.21	0.59	0.03
Estonia	-1.39	0.66	2.75	-0.41	0.10	0.02	0.39	0.01	0.80	0.41	7.48	0.23
Finland	-0.67	-1.01	0.69	-0.66	0.02	0.05	0.02	0.02	0.19	0.95	0.47	0.59
France	0.06	-1.72	1.13	1.30	0.00	0.27	0.12	0.15	0.00	2.77	1.26	2.28
Germany	-2.52	-0.78	-1.03	-0.80	0.25	0.02	0.04	0.03	2.63	0.57	1.04	0.86
Greece	1.21	0.76	2.06	-0.14	0.10	0.04	0.28	0.00	0.61	0.54	4.18	0.03
Hungary	-1.12	-0.56	1.17	0.08	0.10	0.02	0.11	0.00	0.52	0.30	1.36	0.01
India	6.54	-3.56	-1.95	-1.20	0.61	0.18	0.05	0.02	11.83	3.78	1.94	4.89
Ireland	-1.08	-0.58	-1.73	-1.91	0.05	0.02	0.14	0.02	0.17	0.49	0.32	2.97
Israel	3.12	0.99	1.00	-0.37	0.37	0.04	0.04	0.04	4.05	0.91	0.99	0.19
Italy	-2.00	-2.00	1.46	1.72	0.20	0.20	0.11	0.15	1.66	3.73	2.12	3.99
Japan	-0.93	1.62	-0.55	-0.73	0.07	0.20	0.02	0.04	0.36	2.44	0.30	0.73
Mexico	2.47	4.71	-0.79	3.20	0.13	0.46	0.01	0.21	2.53	20.69	0.61	13.77
Netherlands	-2.87	0.19	0.26	-0.41	0.51	0.00	0.00	0.01	3.43	0.03	0.07	0.22
New Zealand	-1.57	0.62	-2.52	-0.11	0.02	0.27	0.00	0.02	1.03	0.36	6.27	0.10
Norway	-0.76	0.49	0.59	-0.48	0.04	0.02	0.03	0.02	0.24	0.22	0.34	0.31
Poland	-0.11	-2.20	0.12	2.55	0.00	0.17	0.00	0.23	4.51	0.01	8.75	0.01
Portugal	-0.69	-0.43	2.11	0.73	0.03	0.01	0.30	0.04	0.20	0.17	4.41	0.72
Russia	3.26	2.11	-0.57	2.37	0.30	0.13	0.01	0.16	4.42	4.17	0.33	7.56
Slovakia	-1.68	-0.15	1.43	0.44	0.23	0.00	0.17	0.02	1.18	0.02	2.02	0.26
Slovenia	0.30	-1.00	3.39	-0.32	0.00	0.04	0.49	0.00	0.04	0.94	1.33	0.14
South Africa	3.00	1.76	-0.64	0.27	0.29	0.09	0.01	3.74	8.87	3.06	0.55	0.27
South Korea	1.64	3.03	-0.60	-0.45	0.12	0.40	0.02	0.01	1.12	8.59	0.36	0.27
Spain	-1.11	-1.37	1.12	-0.36	0.10	0.07	0.01	0.51	1.77	1.24	0.17	0.17
Sweden	-1.16	-0.53	-0.76	-1.62	0.09	0.02	0.04	0.18	0.56	0.26	0.58	3.55
Switzerland	-0.52	0.37	-0.84	-0.60	0.02	0.01	0.06	0.03	0.11	0.13	0.70	0.48
Turkey	3.96	0.29	1.63	-1.76	0.46	0.00	0.08	0.09	6.53	0.08	2.63	4.18
United Kingdom	-3.92	-1.17	-2.10	-0.62	0.46	0.04	0.13	0.01	6.38	1.27	4.37	0.52
United States	-0.92	0.87	-3.72	1.76	0.03	0.02	0.42	0.09	0.35	0.71	13.67	4.15

Table A20: Detailed results for the PCA applied to the variables of the form of competition, for the countries.

## 5.4 Clustering

As indicated by figures A22 and A23, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying such a clustering and the inter-inertia gains are still substantial. Table A21 indicates which variables characterize the most each cluster and table A22 indicates the distribution of countries across clusters and provides a synthesis of each cluster characteristics.

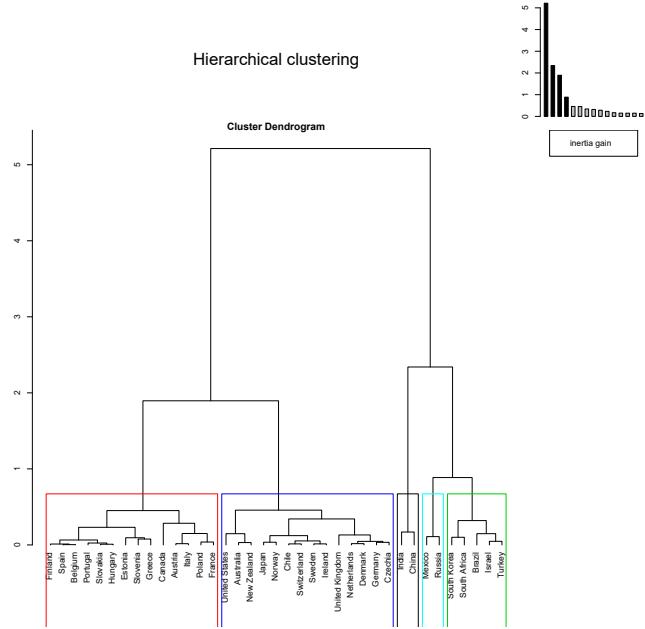


Figure A22: Hierarchical tree for the clustering of countries through their form of competition.

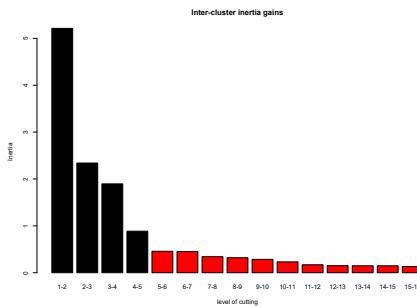


Figure A23: Hierarchical tree for the clustering of countries through their form of competition.

	v.test	p.value	cat mean.	overall mean	v.test	p.value	cat mean.	overall mean	v.test	p.value	cat mean.	overall mean
ABC	-2.88	0.00	1.05	1.70	0.05	0.96	1.71	1.70	-0.06	0.95	1.67	1.70
ABP	-2.50	0.01	-0.37	1.00	-1.00	0.32	-0.79	1.00	0.90	0.37	1.53	1.53
AT	1.19	0.24	0.66	0.45	-2.29	0.02	0.10	0.45	2.77	0.01	1.61	0.45
BEN	-1.46	0.14	2.59	2.83	-2.40	0.02	2.50	2.83	1.30	0.19	3.33	2.83
BSS	-3.65	0.00	2.47	3.22	3.18	0.00	3.77	3.22	-1.43	0.15	2.53	3.22
CCR	-3.21	0.00	1.35	2.00	0.93	0.35	2.16	2.00	-1.15	0.25	1.46	2.00
CSR	-0.43	0.67	0.74	0.81	-1.27	0.21	0.63	0.81	-1.92	0.06	0.05	0.81
DCB	0.02	0.99	1.58	1.57	-1.05	0.29	1.40	1.57	-0.02	0.98	1.56	1.57
Elec_struc	-2.89	0.00	0.66	1.27	-0.63	1.19	1.27	1.19	2.99	0.00	4.19	1.27
FDI	-0.66	0.51	0.47	0.56	-2.15	0.03	0.31	0.56	1.92	0.06	1.16	0.56
Gas_struc	-2.97	0.00	1.25	2.73	0.17	0.87	2.80	2.73	2.31	0.02	5.41	2.73
GIN	-2.49	0.01	2.29	2.91	0.91	0.37	3.10	2.91	0.07	0.95	2.95	2.91
G_OV	2.22	0.03	4.44	3.73	-3.26	0.00	2.85	3.73	0.70	0.49	4.25	3.73
Hstat	-3.12	0.00	0.50	0.63	1.77	0.08	0.69	0.63	0.50	0.62	0.68	0.63
LBR	-1.44	0.15	0.81	0.99	-1.12	0.26	0.87	0.99	1.31	0.19	1.38	0.99
LernerIndex	-1.00	0.32	0.26	0.31	1.48	0.14	0.36	0.31	1.99	0.05	0.51	0.31
LPS	0.37	0.71	3.45	3.30	-2.82	0.01	2.36	3.30	-0.20	0.84	3.11	3.30
PCT	-1.32	0.19	1.35	1.65	-3.21	0.00	1.03	1.65	2.45	0.01	6.65	1.65
Post_struc	-0.29	0.77	2.71	2.80	0.81	0.42	3.00	2.80	-1.87	0.06	1.49	2.80
Rail_struc	-0.38	0.70	3.25	3.44	-3.15	0.00	2.10	3.44	2.13	0.03	5.96	3.44
SCP_struc	-2.56	0.00	2.60	3.26	0.43	0.67	3.36	3.26	0.36	0.72	3.48	3.26
Telec_struc	-0.47	0.64	1.45	1.49	0.12	0.90	1.50	1.49	0.81	0.42	1.68	1.49
TFS	-2.48	0.01	0.33	0.72	-0.22	0.83	0.69	0.72	2.31	0.02	1.55	0.72
TRD	-1.81	0.07	0.75	1.12	-1.47	0.14	0.87	1.12	0.76	0.45	1.48	1.12
TRF	-1.85	0.06	0.00	0.42	-2.21	0.03	0.00	0.42	2.68	0.01	1.83	0.42
ABC	1.07	0.28	2.12	1.70	4.30	0.00	4.50	1.70				
ABP	1.08	0.28	1.48	1.00	4.63	0.00	4.40	1.00				
ATX	-0.84	0.40	0.18	0.45	0.43	0.67	0.67	0.45				
BEN	2.82	0.01	3.64	2.83	2.39	0.02	3.97	2.83				
BSS	1.41	0.16	3.73	3.22	0.25	0.80	3.37	3.22				
CCR	2.23	0.03	2.79	2.00	2.63	0.01	3.54	2.00				
CSR	1.06	0.29	1.13	0.81	4.35	0.00	2.96	0.81				
DCB	0.05	0.96	1.59	1.57	2.20	0.03	2.80	1.57				
Elec_struc	2.15	0.03	2.85	1.27	0.50	0.62	1.88	1.27				
FDI	-0.24	0.81	0.50	0.56	4.08	0.00	2.16	0.56				
Gas_struc	2.71	0.01	5.10	2.73	-1.11	0.27	1.13	2.73				
GIN	0.78	0.44	3.25	2.91	1.94	0.05	4.32	2.91				
G_OV	0.53	0.60	4.03	3.73	0.83	0.41	4.50	3.73				
Hstat	1.48	0.14	0.74	0.63	-0.24	0.81	0.60	0.63				
LBR	2.62	0.01	1.58	0.99	-0.13	0.90	0.95	0.99				
LernerIndex	-1.99	0.05	0.16	0.31	-0.54	0.24	0.31	0.31				
LPS	2.54	0.01	5.07	3.30	1.77	0.08	5.34	3.30				
PCT	3.12	0.00	2.89	1.65	2.03	0.04	2.99	1.65				
Post_struc	0.58	0.56	3.10	2.80	0.24	0.81	3.00	2.80				
Rail_struc	2.87	0.00	6.00	3.44	0.72	0.47	4.50	3.44				
SCP	0.45	0.66	3.47	3.26	3.24	0.00	5.69	3.26				
Telec_struc	2.08	0.04	1.85	1.49	-3.41	0.00	0.52	1.49				
TFS	1.38	0.17	1.09	0.72	0.73	0.47	1.05	0.72				
TRD	3.38	0.00	2.32	1.12	0.91	0.36	1.65	1.12				
TRF	1.72	0.09	1.10	0.42	2.79	0.01	2.25	0.42				

Table A21: Detailed results of the clustering for the form of competition.

Cluster	Countries	Characterization	Details
1	Australia, Chile, Denmark, Ireland, Japan, Netherlands, New Zealand, Norway, Sweden, Switzerland, UK, USA	Strong competition in all sectors, sole proprietor firms and corporations, narrow scope of competition on banking market (lowest H-stat, monopolistic competition), loosest command and control regulation, least barriers in services sectors. Not significant: more antitrust exemptions (< 3 and 5), more competitive postal (< 2) and railroad (< 2) sectors, stronger communication and simplification rules and procedures (< 2 and 3), more competitive telecon sector (< 5), looser barriers to foreign direct investment (< 2), lower market power in banking (lower Lerner index) (> 4 and 5), looser price controls (< 2), looser legal barriers to entry, looser barriers in network sectors (< 2)	Stronger political interference in state-owned enterprises and insulation from market discipline (< 5); loosest barriers to trade facilitation, no tariff barrier (= 2), loosest differential treatment of foreign suppliers, loosest government involvement in network sectors, lightest administrative burdens for sole proprietor firms and corporations, narrow scope of competition on banking market (lowest H-stat, monopolistic competition), loosest command and control regulation, least barriers in services sectors. Not significant: more antitrust exemptions (< 3 and 5), more competitive electricity market and more competitive gas market (< 5), highest degree of competition for public enterprises (< 3 and 5), more restrictive licences and permits system (< 4 and 5), stronger direct state control over enterprises (< 4 and 5); more competitive postal (< 3) and railroad (< 2) sectors, stronger communication and simplification rules and procedures (< 2 and 3), more competitive telecon sector (< 5), looser barriers to foreign direct investment (< 2), lower market power in banking (lower Lerner index) (> 4 and 5), looser price controls (< 2), looser legal barriers to entry, looser barriers in network sectors
2	Austria, Belgium, Canada, Czechia, Estonia, Finland, France, Hungary, Italy, Norway, Poland, Portugal, Slovakia, Slovenia, Spain	Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises	Strongest barriers in services sectors, lower degree of competition on banking market (higher H-stat, monopolistic competition) (> 4); loosest barriers to foreign direct investment, no tariff barrier (=1), smallest number of antitrust exemptions for public enterprises, loosest barriers in network sectors, least restrictive licences and permits system, most competitive railroads sector, loosest price controls, loosest political interference in state-owned enterprises and insulation from market discipline. Not significant: higher market power in banking (higher Lerner index) (< 3), stronger command and control regulations (< 4 and 5), looser government involvement into network sectors, less competitive postal (= 5 and > 4), gas (> 3 and 4) and telecom (> 3 and 4) sectors, wider scope of state-owned enterprises (< 3, 4 and 5), heavier administrative burdens for corporations (< 4 and 5); looser differential treatment of foreign suppliers (< 1), more competitive electricity sector (< 1), lighter administrative burdens for sole proprietor firms (< 1), loosest direct state control over enterprises, looser legal barriers to entry (< 1), stronger communication and simplification of rules and procedures (< 3), looser barriers to trade facilitation (< 1)
3	Mexico, Russia, South Korea	Weak competition and closeness to foreign suppliers but strong competition in the postal sector and strong communication and simplification of rules and procedures	Least competitive electricity, gas and banking (highest Lerner index) sectors, less competitive railroads sector (> 6), biggest number of antitrust exemptions for public enterprises, stronger tariff barriers (< 5), stronger price controls (< 5), strongest differential treatment of foreign suppliers, stronger barriers in foreign direct investment (< 5); most competitive postal sector, strongest communication and simplification of rules and procedures, Not significant: stronger legal barriers to entry (< 4), stronger barriers in network sectors (< 4 and 5), heavier administrative burdens for sole proprietor firms (< 5), less competitive telecon sector (> 4), stronger barriers to trade facilitation (< 4 and 5), stronger political interference in state-owned enterprises management and insulation from market discipline (< 1 and 5), lower degree of competition on banking market (higher H-stat, monopolistic competition) (> 2 and 4), wider scope of state-owned enterprises (< 5), stronger government involvement in network sectors (< 2, 4 and 5); looser direct state control over enterprises (< 2), lighter administrative burdens on corporations (> 1), looser licences and permits system (< 2), looser command and control regulation (< 1), looser barriers in services sectors (< 1 and 2)
4	Brazil, Greece, Israel, South Africa, Turkey	Weak competition and closeness to foreign suppliers but strong competition in banking	Strongest barriers to trade facilitation, stronger price controls (< 3 and 5), least competitive railroads and telecom sectors, less competitive gas (> 3) and electricity (> 3) sectors, stronger tariff barriers (< 3 and 5); lowest level of market power in banking (lowest Lerner index). Not significant: Stronger barriers in service sectors (< 2), stronger differential treatment of foreign suppliers (< 3), heavier administrative burdens for corporations (< 5) and sole proprietor firms (< 3 and 5), weaker communication and simplification of rules and procedures (<5), stronger government involvement in network sectors (<5), least competitive postal sector , stronger political interference in state-owned enterprises management and insulation from market discipline (< 1, 3 and 5), wider scope of state-owned enterprises (< 5), stronger state control over enterprises (< 5); higher degree of competition on banking market (higher H-stat, monopolistic competition) (< 2 and 4), looser barriers to foreign direct investment (< 1 and 2), fewer antitrust exemptions for public enterprises (> 2)
5	China, India	Weak competition, closeness to foreign suppliers, strong government control but strong competition in the telecon sector	Heaviest administrative burdens for corporations and sole proprietor firms, weakest communication and simplification of rules and procedures, strongest tariff barriers, strongest command and control regulations, strongest price controls, strongest government involvement in network sectors, strongest direct state control over enterprises, most competitive telecommunications system; most competitive telecon sector. Not significant: stronger barriers to trade facilitation (< 2), strongest political interference in state-owned enterprises management and insulation from market discipline, stronger differential treatment of foreign suppliers (< 3 and 4), less competitive railroads (> 3 and 4), electricity (> 3 and 4) and postal sectors (= 2 and > 4), more antitrust exemptions for public enterprises (> 3), stronger barriers in service sectors (> 2 and 4); looser legal barriers to entry (< 1 and 2), lower level of market power in banking (lower Lerner index) (< 4) and higher degree of competition on banking market (lower H-stat, monopolistic competition) (< 1)

Table A22: Countries distribution across clusters and characterization for the form of competition.

## 6 The form of the state

### 6.1 Sources and raw data

Name	Variable	Source
StateControl	Degree of state control over the economy	Koske et al. (2015); index 0 to 6 from the least to the most restrictive control
Taxes	Tax revenue in % of GDP (excludes social security contributions)	WDI, World Bank
Finalcons	General government final consumption expenditure in % of GDP	WDI, World Bank
HealthGDP	Domestic general government health expenditure in % of GDP	WDI, World Bank ; 2015 except for Australia, Japan (2014), Israel and New Zealand (2013)
EducGDP	Government expenditure on education, total in % of GDP	WDI, World Bank, except for Greece: Author's own calculations based on Classifications of the Function of Government (COFOG) data from OECDStat, and China: Author's own calculations based on data from <a href="http://en.people.cn/n3/2017/0504/c90000-9211086.html">http://en.people.cn/n3/2017/0504/c90000-9211086.html</a> . 2015 except for Canada (2011), Denmark, Japan and the USA (2014) and India (2013).
MilitaryGDP	Military expenditure (% of GDP)	WDI, World Bank
HealthGOV	Domestic general government health expenditure (% of general government expenditure)	WDI, World Bank, except for Greece and South Korea: Author's own calculations based on COFOG data from OECDStat. 2015 except for Australia, Japan (2014), Israel and New Zealand (2013).
EducGOV	Government expenditure on education, total (% of government expenditure)	WDI, World Bank, except for Greece and South Korea: Author's own calculations based on COFOG data from OECDStat. 2015 except for Canada (2011), Denmark, Japan and The USA (2014) and Israel (2013).
MilitaryGOV	Military expenditure (% of general government expenditure)	WDI, World Bank, except for Greece and South Korea: Author's own calculations based on COFOG data from OECDStat.

Table A23: Variables and sources for the form of the state before statistical imputation of missing data. Value for imputed data for China (education expenditure in % of government expenditure) and Russia (military expenditures in % of general government expenditures) are respectively: XX and XX. URL retrieved May 3, 2019.

Country	StateControl	Taxes	Finalcons	HealthGDP	EducGDP	MilitaryGDP	HealthGOV	EducGOV	MilitaryGOV
Australia	1.94	22.1	18.1	6.1	5.32	1.96	16.65	14.08	5.22
Austria	1.67	26.8	19.9	7.8	5.45	0.71	15.10	10.70	1.37
Belgium	2.19	23.9	8.6	6.55	0.92	16.02	12.17	1.71	
Brazil	2.51	12.8	19.7	3.8	6.24	1.36	7.66	16.25	3.57
Canada	1.92	12.3	20.9	7.7	5.27	1.16	19.07	12.22	2.87
Chile	2.10	17.5	13.2	4.9	4.87	1.91	13.58	19.59	7.62
China	3.57	9.4	14.0	3.2	5.30	1.93	10.11	6.09	
Czechia	1.98	14.6	19.2	6.0	5.79	0.95	14.31	13.88	2.28
Denmark	1.92	33.9	25.6	8.7	7.6	1.12	15.85	13.83	2.04
Estonia	1.61	1.4	20.3	4.9	5.22	2.05	12.16	12.97	
Finland	2.13	20.7	24.4	7.3	7.09	1.46	12.83	12.46	2.57
France	2.37	23.2	23.7	8.7	5.46	2.27	15.31	9.66	4.01
Germany	1.84	11.4	19.3	9.4	4.81	1.18	21.42	10.98	2.69
Greece	2.82	24.9	20.4	5.0	4.30	2.47	9.14	8.03	4.82
Hungary	2.05	23.4	19.9	4.8	4.58	0.94	9.65	9.24	1.86
India	4.02	11.0	10.3	1.0	3.8	2.41	3.37	14.05	8.76
Ireland	2.12	18.9	12.3	5.4	3.77	0.35	18.39	13.07	
Israel	2.92	23.4	22.5	4.5	5.88	5.67	10.95	15.04	14.30
Italy	2.22	23.4	18.9	6.7	4.08	1.38	13.35	8.11	2.75
Japan	1.85	11.4	19.8	9.1	3.6	0.96	22.62	9.09	
Mexico	2.02	13.0	12.5	3.1	5.24	0.67	11.25	19.02	2.47
Netherlands	1.43	21.5	25.1	8.6	5.40	1.14	19.03	12.03	2.55
New Zealand	2.06	27.7	18.6	7.5	6.34	1.11	21.97	18.13	3.29
Norway	2.13	22.1	23.4	8.5	7.55	1.50	17.46	15.73	
Poland	3.06	15.6	18.0	4.4	4.81	2.14	10.67	11.58	5.15
Portugal	2.18	22.9	18.1	5.9	4.88	1.79	12.30	10.13	3.71
Russia	3.41	10.6	17.5	3.4	3.82	4.85	9.57	10.87	
Slovakia	2.17	17.6	19.4	5.5	4.65	1.13	12.05	10.28	2.48
Slovenia	2.50	18.5	18.6	6.1	4.91	0.93	12.66	11.22	2.13
South Africa	3.12	27.3	20.5	4.4	5.96	1.10	14.06	18.70	3.34
South Korea	2.47	13.9	15.0	4.2	5.25	2.64	12.86	16.16	12.64
Spain	1.86	14.4	19.3	6.5	4.28	1.27	14.88	9.77	
Sweden	2.22	27.0	25.9	9.2	7.05	1.08	18.36	15.50	2.21
Switzerland	2.68	9.8	11.9	8.5	5.10	0.67	25.16	15.53	2.02
Turkey	3.44	18.2	13.9	3.2	4.29	1.85	10.07	12.84	5.53
United Kingdom	1.57	25.2	19.2	7.9	5.63	1.88	18.51	13.82	4.69
United States	2.70	11.2	14.4	8.5	5.0	3.29	22.57	13.45	9.35

Table A24: Data for the form of the state. Imputed values for EducGOV for China and for MilitaryGOV for Russia are respectively 16.08 and 11.6.

## 6.2 Imputation of missing data

Data for *EducGOV* for China and for *MilitaryGOV* for Russia were missing and had to be statistically imputed following the same procedure as for missing data in section 5.2. Figures A24, A25, A26 show that the imputation is of very high quality with barely any variation in the first two dimensions and in the positions of the countries and of the variables on the factorial plan 1:2. Values for the imputed data are indicated in the caption of table A24.

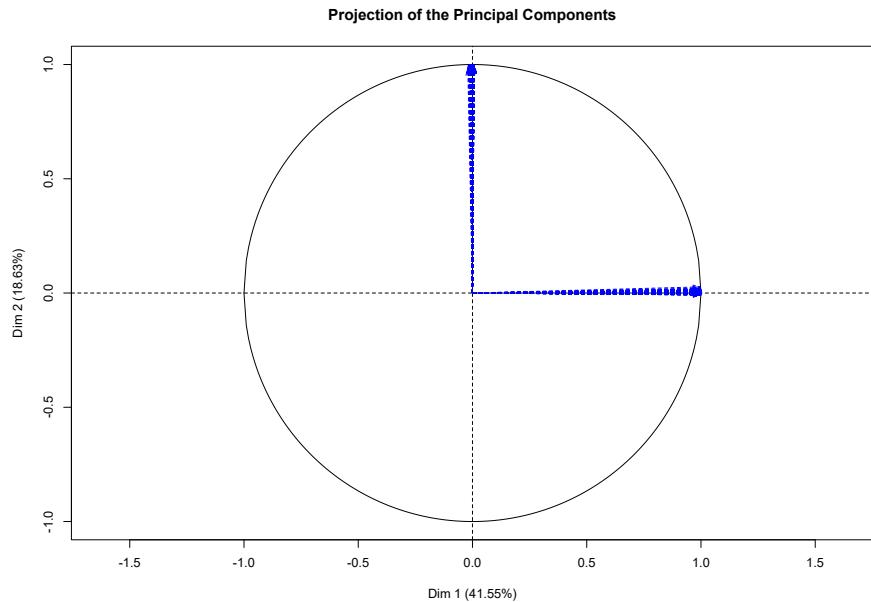


Figure A24: Imputations of missing variables modelling the forms of the state: stability of the principal components across multiple imputations.

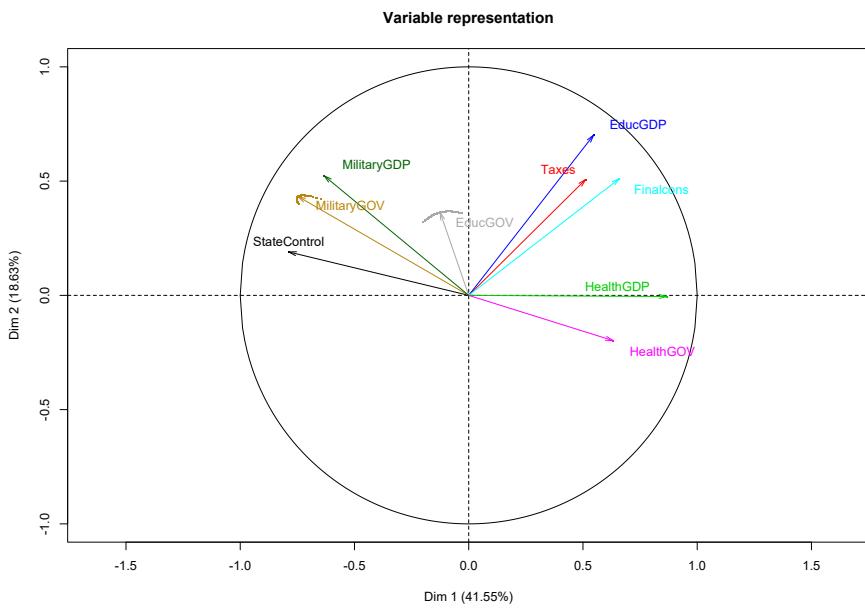


Figure A26: Imputations of missing variables modelling the forms of the state: stability of the variables across multiples imputations.

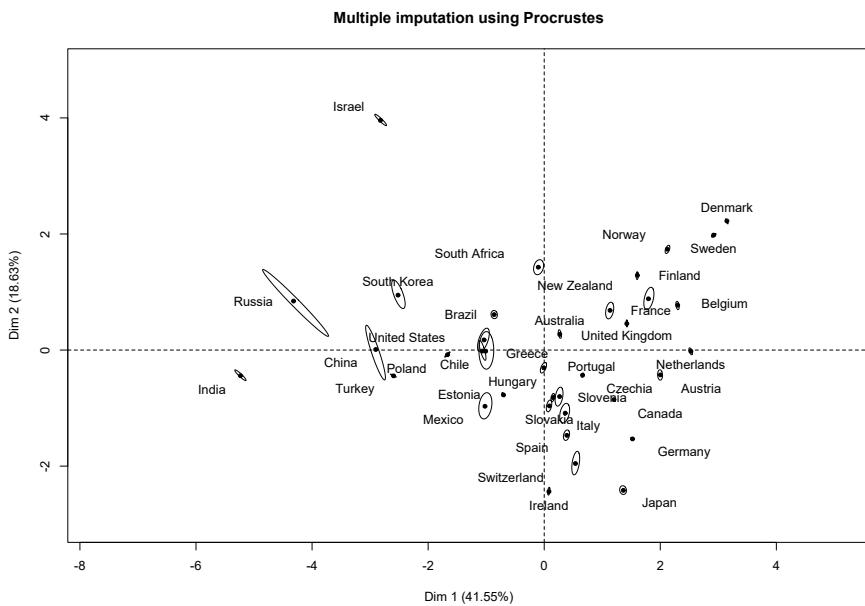


Figure A25: Imputations of missing variables modelling the forms of the state: stability of the countries across multiple imputations.

### 6.3 Principal components analysis

Les 2 premiers axes de l' ACP expriment 60.18% de l'inertie totale du jeu de données ; cela signifie que 60.18% de la variabilité totale du nuage des individus (ou des variables) est représentée dans ce plan.

The factorial plan built from the first two axis expresses 60.18% of the total inertia. This value exceeds the reference value 41.32% of the 0.95-quantile of the inertia percentages distribution obtained through simulating 2157 comparable random dataset following a normal distribution. The information contained on the first plan is therefore significant. However, axes 3 and 4 also convey a significant information, as the first four dimensions sum up 88.07% of the total inertia, which is higher than the reference value of 68.08%. I therefore kept axes 1 to 4 for the analysis.

Axes 1 and 2 oppose countries with high values for *Taxes*, *EducGDP*, *Finalcons* and *HealthGDP* and low values for *StateControl* and *MilitaryGOV* to countries with high values for *StateControl*, *MilitaryGOV* and *MilitaryGDP* and low ones for *HealthGDP*, *HealthGOV* and *Finalcons*. Axis 3 differentiate countries with high values for *EducGOV*, *EducGDP* and *HealthGOV* and low values for *HealthGDP* and *FinalCons* from countries with high values for *Finalcons* and low values for *EducGOV* and *EducGDP*. Finally, the fourth axis differentiate between countries with high values for *HealthGOV* and low values for *Finalcons* and countries with high values for *EducGOV* and *EducGDP* but low values for *HealthGDP*.

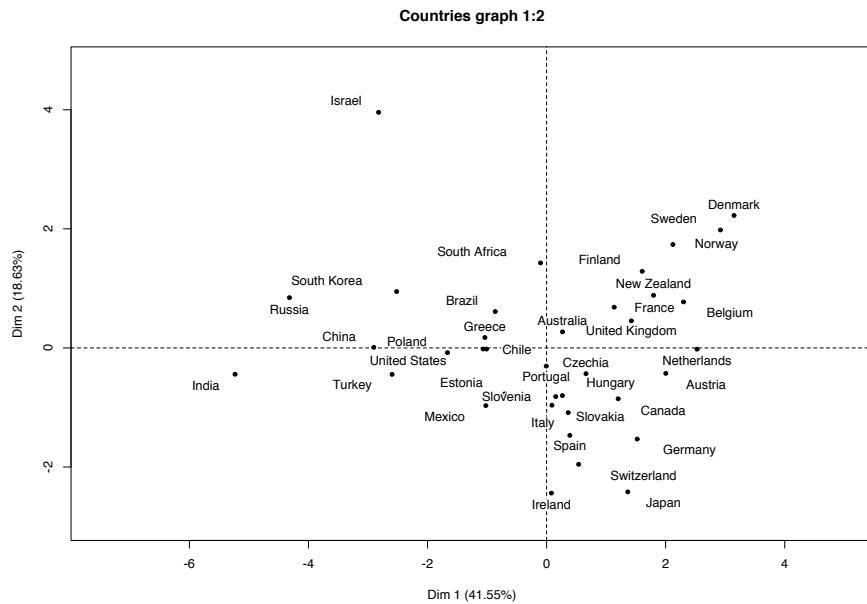


Figure A27: Projection of the countries on the factorial plan of the axes 1 and 2 for the form of the state.

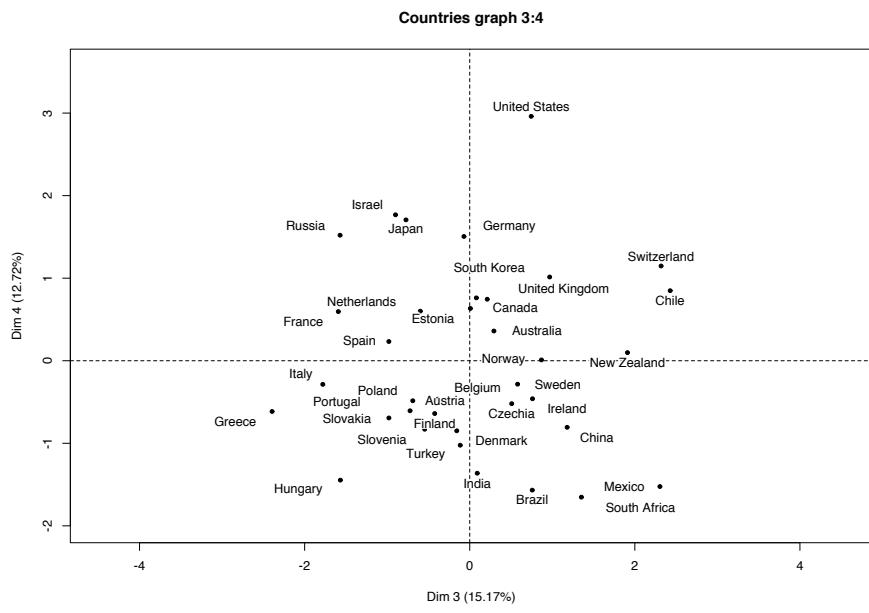


Figure A28: Projection of the countries on the factorial plan of the axes 3 and 4 for the form of the state.

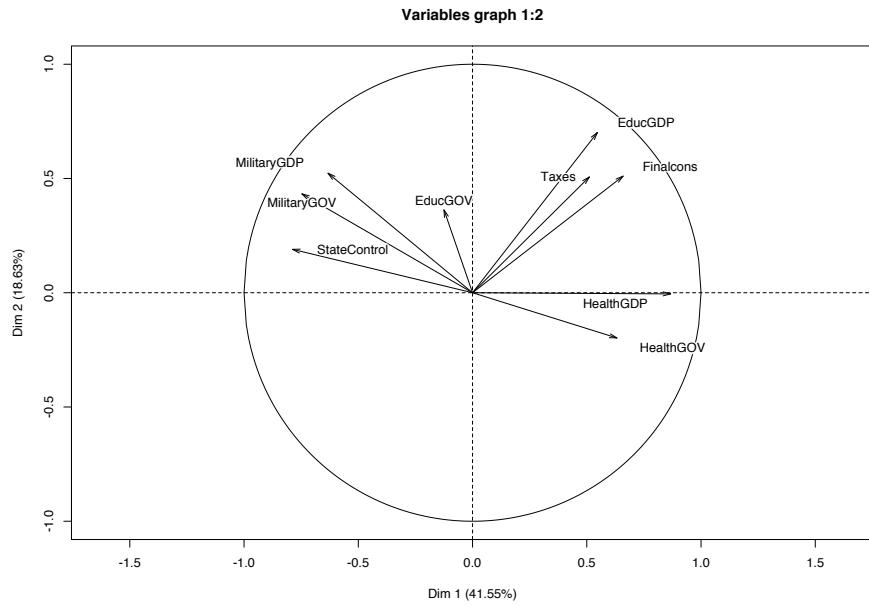


Figure A29: Projection of the variables on the factorial plan of the axes 1 and 2 for the form of the state.

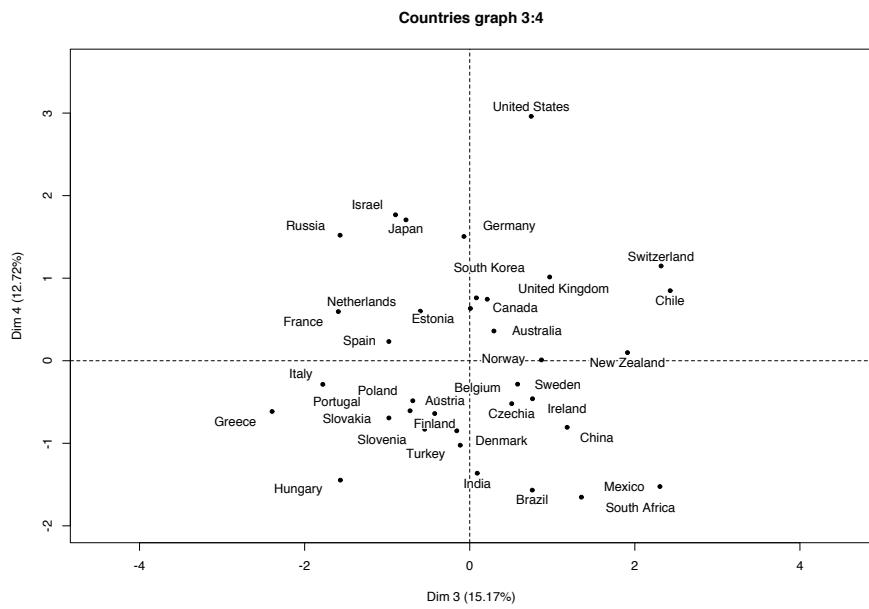


Figure A30: Projection of the countries on the factorial plan of the axes 3 and 4 for the form of the state.

	Coordinates	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Square cosine	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Contributions	Dim. 1	Dim. 2	Dim. 3	Dim. 4	
	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Dim. 1	Dim. 2	Dim. 3	Dim. 4	Dim. 1	Dim. 2	Dim. 3	Dim. 4
StateControl	-0.79	0.19	0.01	-0.17	0.62	0.04	0.00	0.03	16.59	2.15	0.01	2.60	15.32	3.05	8.21	3.05
Taxes	0.51	-0.20	-0.06	-0.31	0.43	0.26	0.04	0.09	6.99	15.32	0.00	3.30	20.10	0.00	6.70	16.30
HealthGDP	0.87	-0.01	0.30	-0.16	0.30	0.49	0.09	0.02	7.98	29.32	0.00	0.00	0.00	0.00	0.00	2.10
EducaGDP	0.55	0.51	-0.44	-0.01	0.43	0.26	0.20	0.00	11.61	15.54	14.31	0.00	0.00	0.00	0.00	0.00
Finalcons	0.66	-0.20	0.37	0.60	0.40	0.04	0.14	0.35	10.68	2.34	10.25	30.91	0.00	0.00	0.00	0.00
HealthGOV	0.63	-0.36	0.91	-0.09	0.02	0.13	0.82	0.01	0.42	7.85	11.17	0.00	60.20	0.00	0.00	0.00
EducaGOV	-0.13	0.43	0.00	0.46	0.56	0.19	0.00	0.21	14.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MilitaryGOV	-0.75	0.52	-0.27	0.48	0.40	0.27	0.07	0.23	10.70	16.33	5.18	20.43	0.00	0.00	0.00	0.00
MilitaryGDP	-0.63	0.52	0.27	0.29	0.36	0.06	0.06	0.07	0.11	0.05	0.12	0.00	0.30	0.30	0.30	0.30
Australia	0.27	-0.43	-0.72	-0.61	0.68	0.03	0.09	0.02	3.82	0.96	0.00	0.00	0.00	0.00	0.00	0.51
Austria	2.00	0.77	-0.39	-0.47	0.79	0.09	0.00	0.03	0.54	0.60	0.00	0.00	0.00	0.00	0.00	0.50
Belgium	0.86	0.61	0.76	-1.57	0.12	0.06	0.09	0.38	0.04	1.18	0.01	0.01	0.00	0.00	0.00	5.80
Brazil	1.20	-0.85	0.08	0.76	0.41	0.21	0.00	0.17	1.04	0.00	0.00	0.00	0.00	0.00	0.00	1.37
Canada	-1.01	-0.02	2.43	0.11	0.85	0.00	0.62	0.08	0.74	0.00	0.00	0.00	0.00	0.00	0.00	1.70
Chile	-2.90	0.01	1.18	-0.81	0.72	0.00	0.12	0.06	6.09	0.00	0.00	0.00	0.00	0.00	0.00	2.75
China	0.66	-0.43	0.51	-0.52	0.23	0.10	0.13	0.14	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Czechia	2.22	-0.16	-0.35	0.63	0.31	0.00	0.05	0.05	7.16	7.97	0.05	0.05	0.00	0.00	0.00	1.70
Denmark	3.15	-0.77	-0.01	0.63	0.06	0.07	0.00	0.05	0.36	0.96	0.00	0.00	0.00	0.00	0.00	0.95
Estonia	-0.70	1.29	-0.42	0.64	0.42	0.27	0.03	0.07	1.86	2.67	0.00	0.00	0.00	0.00	0.00	0.97
Finland	1.61	0.68	-1.59	0.60	0.25	0.09	0.50	0.07	0.93	0.75	0.02	0.02	0.00	0.00	0.00	0.84
France	1.13	-1.53	-0.07	-1.51	0.32	0.00	0.31	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35
Germany	-1.04	0.18	-2.39	-0.62	0.14	0.00	0.74	0.05	0.78	0.05	0.00	0.00	0.00	0.00	0.00	0.89
Greece	0.27	-0.80	-1.57	-1.45	0.01	0.11	0.43	0.37	0.05	1.03	0.00	0.00	0.00	0.00	0.00	4.94
Hungary	0.27	-0.44	0.09	-1.36	0.91	0.01	0.00	0.06	19.80	0.32	0.02	0.02	0.00	0.00	0.00	4.38
India	-5.23	-2.44	0.76	-0.46	0.00	0.72	0.07	0.03	0.01	9.59	0.00	0.00	0.00	0.00	0.00	0.50
Ireland	0.08	3.96	-0.90	1.77	0.28	0.56	0.03	0.11	5.76	25.24	0.00	0.00	0.00	0.00	0.00	7.38
Israel	-2.82	-1.09	-1.78	-0.29	0.03	0.23	0.61	0.02	0.10	1.90	0.00	0.00	0.00	0.00	0.00	6.27
Italy	0.36	-2.42	-0.77	1.71	0.16	0.50	0.05	0.25	1.34	9.42	0.00	0.00	0.00	0.00	0.00	1.18
Japan	-0.97	2.30	-1.52	0.09	0.08	0.47	0.21	0.75	0.51	0.00	0.00	0.00	0.00	0.00	0.00	5.49
Mexico	-0.53	-0.02	-0.60	0.60	0.81	0.00	0.05	0.05	4.62	0.00	0.00	0.00	0.00	0.00	0.00	0.85
Netherlands	1.80	0.88	1.91	0.10	0.36	0.09	0.41	0.00	0.00	2.33	1.26	0.00	0.00	0.00	0.00	0.00
New Zealand	2.12	1.74	0.87	0.01	0.50	0.34	0.09	0.00	3.25	4.86	0.00	0.00	0.00	0.00	0.00	1.49
Norway	-1.67	-0.08	-0.69	-0.49	0.72	0.00	0.12	0.06	2.01	0.01	0.01	0.01	0.00	0.00	0.00	0.50
Poland	-0.01	-0.31	-1.11	-0.39	0.00	0.05	0.60	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
Portugal	-4.32	0.84	-1.57	-1.52	0.77	0.03	0.10	0.10	1.15	13.48	0.00	0.00	0.00	0.00	0.00	2.43
Russia	0.09	-0.96	-0.98	-0.69	0.00	0.37	0.39	0.19	0.01	1.49	0.00	0.00	0.00	0.00	0.00	1.88
Slovakia	0.15	-0.82	-0.55	-0.83	0.01	0.37	0.16	0.38	0.02	1.08	0.00	0.00	0.00	0.00	0.00	1.44
South Africa	-0.10	1.43	1.35	-1.65	0.00	0.24	0.32	0.01	3.28	3.62	0.00	0.00	0.00	0.00	0.00	6.45
South Korea	-2.52	0.95	0.97	1.01	0.57	0.08	0.09	0.09	4.59	1.44	0.00	0.00	0.00	0.00	0.00	2.43
Spain	0.39	-1.47	-0.98	0.23	0.04	0.59	0.26	0.02	0.11	3.48	1.90	0.00	0.00	0.00	0.00	0.00
Sweden	2.92	1.98	0.58	-0.28	0.63	0.29	0.03	0.01	6.16	6.32	0.00	0.00	0.00	0.00	0.00	0.19
Switzerland	0.54	-1.96	2.32	1.15	0.02	0.29	0.41	0.10	0.21	6.16	10.63	0.00	0.00	0.00	0.00	0.00
Turkey	-2.60	-0.45	-0.12	-1.02	0.75	0.02	0.00	0.12	4.87	0.32	0.00	0.00	0.00	0.00	0.00	2.47
United Kingdom	1.42	0.46	0.21	0.75	0.49	0.05	0.01	0.13	1.46	0.33	0.00	0.00	0.00	0.00	0.00	1.31
United States	-1.07	-0.02	0.74	2.96	0.10	0.00	0.05	0.77	0.82	0.00	0.00	0.00	0.00	0.00	0.00	1.10
																20.70

Table A25: Detailed results for the PCA applied to the variables of the form of the state.

## 6.4 Clustering

As indicated by figures A31 and A32, the clustering process led to select six classes. The hierarchical tree exhibits fairly long branches justifying a such a clustering and the inter-inertia gains are still substantial. Table A26 indicates which variables characterize the most each cluster. Table A27 indicates the distribution of countries across clusters and provides a synthesis of each cluster characteristics.

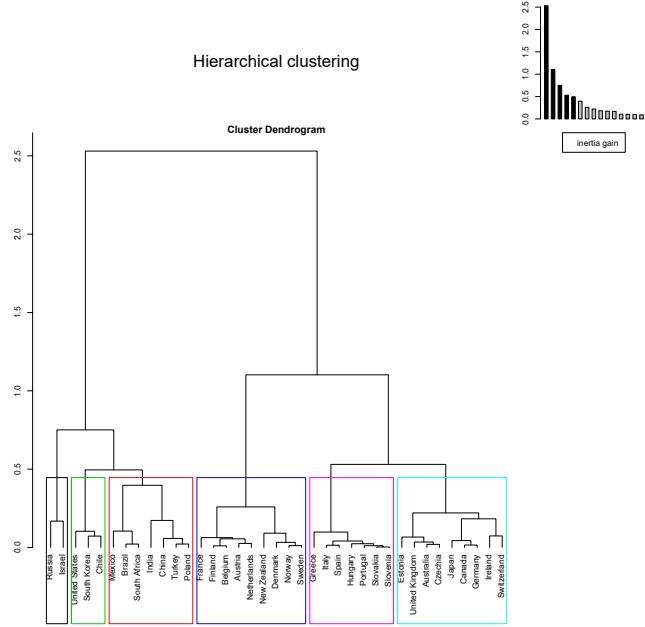


Figure A31: Hierarchical tree for the clustering of countries through their form of the state.

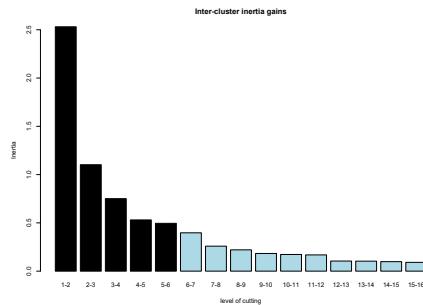


Figure A32: Hierarchical tree for the clustering of countries through their form of the state.

	v-test	p-value	Cat mean.	Overall mean	v-test	p-value	Cat mean.	Overall mean	v-test	p-value	Cat mean.	Overall mean
	1		1		2		2		3		3	
EducGDP	-0.61	0.54	4.85	5.29	-0.55	0.58	5.09	5.29	-0.43	0.67	5.04	5.29
EducGOV	-0.09	0.93	12.96	13.14	0.02	2.28	0.02	13.14	0.67	0.05	16.40	13.14
Finalcons	0.41	0.68	20.00	18.85	-2.40	0.02	15.56	18.85	-2.08	0.04	14.20	18.85
HealthGDP	-1.51	0.13	3.95	6.19	-3.93	0.00	3.30	6.19	-0.27	0.79	5.87	6.19
HealthGOV	-1.37	0.17	10.26	14.78	-3.18	0.00	9.60	14.78	1.34	0.18	10.34	14.78
MilitaryGDP	4.82	0.00	5.26	1.68	-0.12	0.91	4.64	1.68	1.56	0.12	2.61	1.68
MilitaryGOV	3.90	0.00	13.02	4.40	0.54	0.59	4.99	4.40	3.08	0.00	4.87	4.40
StateControl	1.98	0.05	3.17	2.35	3.71	0.00	3.11	2.35	0.24	0.81	2.42	2.35
Taxes	-0.31	0.76	17.00	18.48	-1.34	0.18	15.33	18.48	-1.12	0.26	14.20	18.48
			4				5				6	
EducGDP	-1.97	0.05	4.64	5.29	-1.30	0.19	4.86	5.29	4.23	0.00	6.57	5.29
EducGOV	-3.77	0.00	9.56	13.14	-0.44	0.66	12.73	13.14	0.77	0.44	13.87	13.14
Finalcons	0.74	0.46	19.79	18.85	-0.89	0.37	17.73	18.85	3.45	0.00	22.89	18.85
HealthGDP	-0.06	0.95	6.15	6.19	1.40	0.16	7.14	6.19	3.26	0.00	8.23	6.19
HealthGOV	-1.58	0.12	12.42	14.78	2.62	0.01	18.72	14.78	1.76	0.08	17.24	14.78
MilitaryGDP	0.47	0.64	1.52	1.68	-1.54	0.12	1.16	1.68	-1.49	0.14	1.21	1.68
MilitaryGOV	-1.31	0.19	3.08	4.40	-1.39	0.16	3.00	4.40	-1.91	0.06	2.62	4.40
StateControl	-0.39	0.70	2.27	2.35	-1.87	0.06	1.99	2.35	-2.41	0.02	1.92	2.35
Taxes	1.19	0.24	21.04	18.48	-2.66	0.01	12.74	18.48	3.52	0.00	25.51	18.48

Table A26: Detailed results for the clustering of the form of the state.

Cluster	Countries	Characterization	Details
1	Israel, Russia	Sovereign and economic control-oriented	Highest military expenditures in % of GDP and government expenditures, strongest state control over the economy. Not significant: Higher final consumption expenditure in % of GDP (< 6), lower education expenditures in % of GDP (> 4) and in % of government expenditures (> 4 and 5), lower taxes in % of GDP (> 2 and 3), lower health expenditures in % of GDP (> 2) and in % of government expenditures (> 2).
2	Brazil, China, India, Mexico, Poland, South Africa, Turkey	Economic control-oriented	Stronger state control over the economy (< 1), higher education expenditures in % of GDP and government expenditures (< 3) ; lower final consumption in % of GDP (> 3), lowest health expenditures in % of GDP and in % of government expenditures. Not significant: Higher military expenditure in % of government expenditures (< 1 and 3) but lower military expenditures in % of GDP (> 4, 5 and 6), lower education expenditures in % of GDP (> 1, 3, 4 and 5), lower taxes in % of GDP (> 3 and 5).
3	Chile, South Korea, USA	Sovereign, smaller overall size	Higher military and education expenditures in % of government expenditures (< 1); lower taxes (> 5) and lowest final consumption expenditures in % of GDP. Not significant: Higher military expenditures in % of GDP (< 1), higher health expenditures in % of government expenditure (< 5), stronger state control over the economy (< 1 and 2); lower health expenditures in % of GDP (> 1 and 2), lower education expenditures in % of GDP (> 1, 4 and 5).
4	France, Greece, Hungary, Italy, Portugal, Slovenia, Spain	Weakly welfare oriented	Lowest education expenditures in % of GDP and of government expenditures. Not significant: Higher taxes (< 6) and final consumption expenditures (< 1 and 6) in % of GDP, lower health in % of GDP (> 1, 2 and 3) and in % of government expenditures (> 1 and 2), lower military expenditures in % of GDP (> 5 and 6) and in % of government expenditure (> 4 and 5), looser state control over the economy (> 5 and 6).
5	Australia, Canada, Czechia, Estonia, Germany, Ireland, Japan, Switzerland	Partially welfare-oriented and smaller overall size	Highest health expenditures in % of government expenditures (< 6); weaker state control over the economy (> 6) and lowest taxes in % of GDP. Not significant: higher health expenditures in % of GDP (< 6); lower education expenditures in % of GDP (> 1 and 4) and government expenditures (> 4), lower military expenditures in % of GDP (> 6) and lowest military expenditures in % of government expenditures, lower final consumption expenditures in % of GDP (> 2 and 3).
6	Austria, Belgium, Denmark, Finland, Netherlands, New Zealand, Norway, Sweden, UK	Strongly welfare-oriented and bigger overall size	Highest education expenditures in % of GDP, highest taxes in % of GDP, highest final consumption and health expenditures in % of GDP, higher health expenditures in % of government expenditures (< 3 and 5) ; lowest military expenditures in % of government expenditures, weakest state control over the economy. Not significant: higher education expenditures in % of government expenditures (< 2 and 3); lower military expenditures in % of GDP (< 5).

Table A27: Countries distributions across clusters and characterization for the form of the state.

## 7 The insertion into the international regime

### 7.1 Sources and raw data

Name	Variable	Source
PrimAgri	Primary sector, agriculture	
PrimIndus	Primary sector, extractive and energy activities: mining and quarrying, energy production, water supply sewerage, waste management and remediation activities	All sectors are expressed in share of gross value added. Author's own calculations based on OECDStat data and World Development Indicators data (for China). Sectors are according to ISIC revision 4 except for Russia, India and South Africa (revision 3). 2015 except Australia, Ireland, Israel, Japan, Mexico, Russia, South Africa, South Korea, Switzerland, Turkey, the USA (2014), China (2013), India (2009) and New Zealand (2012).
SecManuf	Secondary sector, manufacturing	
SecConst	Secondary sector, construction	
Ter_Serv	Tertiary sector, non-FIRE services	
Ter_FIRE	Tertiary sector, FIRE: financial, insurance and real estate activities	
Tradeglobfacto	KOF index of trade globalisation <i>de facto</i>	
Tradeglobjure	KOF index of trade globalisation <i>de jure</i>	
Finglobfacto	KOF index of financial globalisation <i>de facto</i>	
Finglobjure	KOF index of financial globalisation <i>de jure</i>	Dreher (2006); Gygli et al. (2018)
Socglobfacto	KOF index of social globalisation <i>de facto</i>	
Socglobjure	KOF index of social globalisation <i>de jure</i>	
Polglobfacto	KOF index of political globalisation <i>de facto</i>	
Polglobjure	KOF index of political globalisation <i>de jure</i>	

Table A28: Variables and sources for the insertion into the international regime.

Country	PrimAri	PrimIndus	SecManuf	SecConst	Ter_Serv	Ter_FIRE
Australia	2.50%	9.87%	6.82%	8.83%	50.00%	21.98%
Austria	1.37%	3.13%	18.03%	6.24%	55.93%	14.76%
Belgium	0.69%	2.65%	13.47%	5.55%	62.65%	14.80%
Brazil	5.12%	7.04%	13.87%	6.27%	52.96%	14.75%
Canada	1.52%	9.77%	10.68%	7.24%	51.99%	18.81%
Chile	3.51%	10.98%	7.77%	4.12%	42.79%	5.35%
China	9.69%	6.85%	30.10%	6.94%	33.30%	13.13%
Czechia	2.59%	5.55%	25.47%	5.35%	46.99%	12.53%
Denmark	1.54%	4.64%	13.22%	4.46%	58.89%	16.77%
Estonia	3.38%	2.97%	15.46%	6.42%	55.44%	14.31%
Finland	2.82%	3.54%	16.49%	6.22%	55.39%	15.76%
France	1.64%	2.52%	10.98%	5.55%	61.58%	17.34%
Germany	0.66%	2.98%	21.80%	4.43%	53.91%	15.08%
Greece	3.88%	3.52%	9.46%	2.95%	59.13%	21.64%
Hungary	4.28%	3.17%	22.54%	4.17%	53.28%	11.35%
India	17.64%	4.12%	14.94%	8.11%	38.40%	16.79%
Ireland	1.56%	2.50%	19.72%	5.92%	56.32%	16.50%
Israel	1.31%	2.50%	14.12%	5.44%	56.12%	20.51%
Italy	2.13%	3.09%	15.26%	4.80%	54.14%	19.56%
Japan	1.17%	2.07%	18.67%	6.12%	55.94%	16.03%
Mexico	2.34%	3.00%	30.29%	4.94%	47.33%	14.99%
Netherlands	3.30%	9.22%	17.77%	7.39%	64.39%	13.37%
New Zealand	1.79%	4.51%	11.82%	4.40%	50.24%	20.65%
Norway	6.10%	5.40%	11.86%	5.74%	51.23%	11.99%
Poland	1.64%	25.06%	7.86%	5.81%	54.48%	9.26%
Portugal	2.82%	6.13%	17.85%	7.13%	57.90%	17.88%
Russia	2.26%	3.68%	12.90%	4.36%	42.49%	17.52%
Slovakia	4.17%	13.72%	15.61%	6.49%	50.80%	10.77%
Slovenia	4.28%	4.22%	20.34%	8.13%	53.49%	10.73%
South Africa	2.13%	4.15%	22.36%	5.53%	47.50%	20.55%
South Korea	2.49%	12.10%	13.29%	4.08%	45.87%	13.55%
Spain	2.43%	3.62%	12.79%	5.23%	59.36%	15.56%
Sweden	1.30%	3.40%	15.42%	5.68%	59.39%	12.64%
Switzerland	0.75%	1.93%	18.98%	5.34%	62.14%	10.80%
Turkey	8.03%	4.18%	17.77%	5.12%	50.47%	14.42%
United Kingdom	0.67%	4.02%	10.36%	6.03%	60.05%	19.11%
United States	1.33%	4.40%	12.33%	3.96%	58.51%	19.47%

Table A29: Sectoral shares data for the insertion in the international regime.

Country	Tradeglobfacto	Tradeglobobjure	Finglobfacto	Finglobobjure	Socglobfacto	Socglobobjure	Polglobfacto	Polglobobjure
Australia	23.9	83.9	78.5	67.8	86.8	80.0	90.8	91.1
Austria	69.9	91.1	90.7	73.7	87.1	86.4	93.9	97.3
Belgium	93.2	88.0	93.6	81.8	82.6	89.9	92.6	99.0
Brazil	19.1	47.9	50.1	28.5	45.3	76.6	95.5	67.6
Canada	36.5	85.9	84.1	74.8	88.8	84.2	93.3	93.7
Chile	38.2	77.2	76.9	64.3	84.3	85.3	91.9	91.3
China	27.6	60.6	48.5	17.3	50.7	52.5	94.9	92.3
Czechia	78.4	91.8	80.6	76.0	74.1	82.5	87.4	93.1
Denmark	73.5	88.4	91.7	75.2	86.5	90.1	88.7	97.4
Estonia	89.6	90.1	84.8	72.9	73.9	72.2	85.7	85.7
Finland	61.5	91.1	89.7	75.5	79.3	92.4	87.3	98.0
France	54.2	89.2	88.4	78.5	82.7	87.9	98.6	99.7
Germany	65.5	87.5	86.1	69.1	85.5	85.3	96.5	100.0
Greece	56.0	88.2	75.8	66.6	72.1	82.6	89.4	94.6
Hungary	85.7	87.6	86.7	72.1	74.2	81.0	96.1	94.9
India	35.4	29.9	38.3	15.6	38.9	51.6	96.3	94.3
Ireland	78.0	89.4	97.2	80.2	87.8	88.5	86.1	66.5
Israel	54.7	79.8	70.5	71.0	85.9	81.8	65.3	83.4
Italy	44.0	89.8	76.6	69.7	71.9	82.4	98.8	99.7
Japan	24.2	81.7	75.1	75.4	69.4	83.2	94.2	88.8
Mexico	31.7	71.0	60.1	58.9	57.8	75.5	85.4	93.3
Netherlands	90.2	89.4	96.5	81.1	80.4	87.2	96.0	99.3
New Zealand	44.9	86.5	78.4	71.8	83.7	90.0	75.1	78.3
Norway	60.3	84.1	91.2	69.8	88.8	82.1	88.4	92.9
Poland	64.0	86.7	69.4	55.3	65.2	85.1	88.7	95.6
Portugal	59.4	92.4	87.1	70.3	71.0	83.1	88.2	96.4
Russia	45.3	67.1	53.4	68.3	63.3	92.0	88.8	91.5
Slovakia	75.6	89.8	77.9	72.9	71.9	84.2	78.8	90.2
Slovenia	84.6	87.7	79.6	50.7	72.0	89.7	75.3	87.7
South Africa	48.2	54.4	67.2	32.1	59.6	73.6	94.9	89.0
South Korea	60.6	64.5	52.6	67.1	75.6	81.8	91.2	99.3
Spain	53.2	89.8	85.0	65.8	72.1	83.8	96.7	99.0
Sweden	68.0	89.7	92.0	75.6	83.7	87.7	95.3	99.0
Switzerland	77.9	81.7	97.0	78.7	91.2	92.8	98.6	96.9
Turkey	43.0	71.2	45.5	49.8	57.7	74.8	91.0	99.4
United Kingdom	52.3	90.2	91.8	76.1	86.2	89.9	96.7	95.3
United States	19.1	88.6	77.5	70.2	81.2	80.0	95.3	95.6

Table A30: Globalization index data for the insertion in the international regime.

## 7.2 Principal components analysis

The first two dimensions of PCA express 55.91% of the total dataset inertia. This value is higher than 32.15%, the reference value is the 0.95-quantile of the inertia percentages distribution obtained by simulating 1019 comparable data tables based on a normal distribution. However, only the first axis presents an amount of inertia greater than those obtained by the 0.95-quantile of random distributions (42.81% against 18.1%). For the same reasons as above, I nonetheless kept also the second axis.

Axis 1 opposes countries sharing high values for *Socglobfacto*, *Finglobfacto*, *Ter\_Serv*, *Finglobjure*, *Tradeglobjure*, *Socglobjure*, *Polglobjure* and *Tradeglobfacto* and low values for *PrimAgri* and *PrimIndus* to countries with high values for *PrimAgri*, *SecManuf* and *SecConst* and low values for *Socglobjure*, *Finglobjure*, *Ter\_Serv*, *Finglobfacto*, *Socglobfacto*, *Tradeglobjure* and *Polglobjure*. The second axis opposes countries sharing high values for *PrimIndus* and low values for *Polglobfacto* and *Ter\_FIRE* to countries with low values for *Polglobjure*, *Tradeglobjure*, *Finglobfacto* and *Finglobjure*.

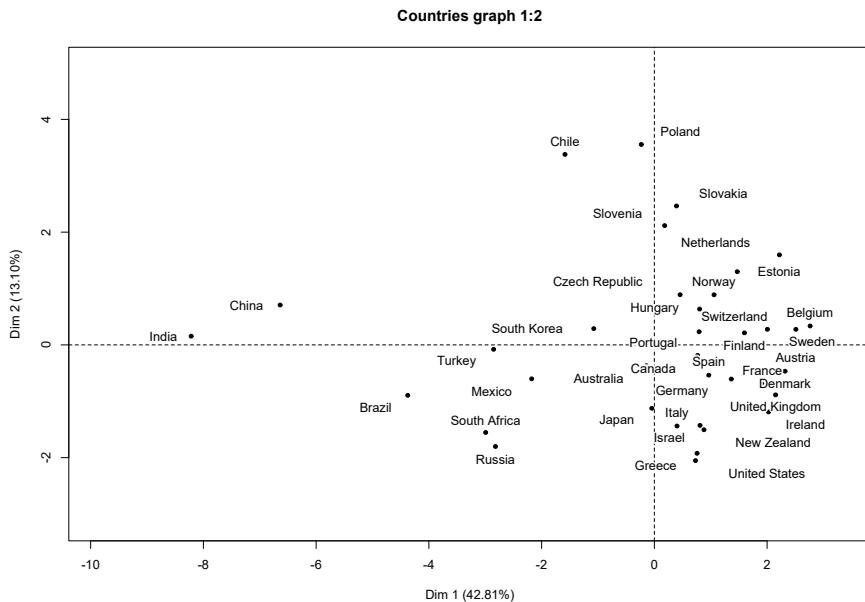


Figure A33: Projection of the countries on the factorial plan of the axes 1 and 2 for the insertion in the international regime.

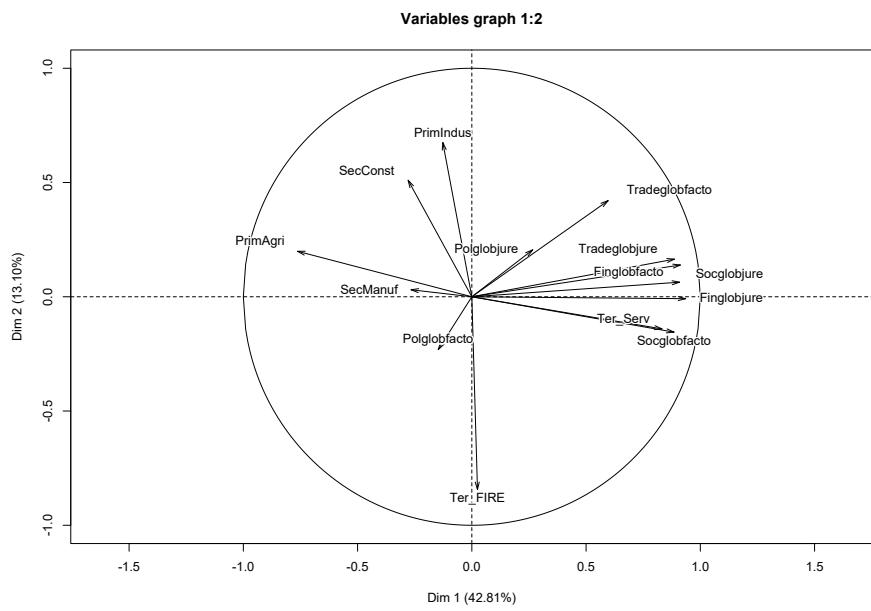


Figure A34: Projection of the variables on the factorial plan of the axes 1 and 2 for the insertion in the international regime.

	Coordinate		Square cosines		Contributions	
	Dim. 1	Dim. 2	Dim. 1	Dim. 2	Dim. 1	Dim. 2
<b>PrimAgri</b>	-0.76	0.20	0.58	0.04	9.71	2.16
<b>PrimIndus</b>	-0.13	0.68	0.02	0.46	0.27	24.83
<b>SecManuf</b>	-0.27	0.03	0.07	0.00	1.18	0.05
<b>SecConst</b>	-0.28	0.51	0.08	0.26	1.30	14.17
<b>Ter_Serv</b>	0.83	-0.14	0.69	0.02	11.56	1.08
<b>Ter_FIRE</b>	0.03	-0.84	0.00	0.71	0.01	38.78
<b>Tradeglobfacto</b>	0.60	0.42	0.36	0.18	5.94	9.65
<b>Finglobfacto</b>	0.91	0.06	0.83	0.00	13.79	0.22
<b>Tradeglobjure</b>	0.89	0.17	0.79	0.03	13.12	1.48
<b>Finglobjure</b>	0.94	-0.01	0.88	0.00	14.61	0.00
<b>Socglobfacto</b>	0.89	-0.16	0.78	0.02	13.07	1.31
<b>Socglobjure</b>	0.91	0.14	0.83	0.02	13.90	1.05
<b>Polglobfacto</b>	-0.15	-0.23	0.02	0.05	0.36	2.92
<b>Polglobjure</b>	0.27	0.21	0.07	0.04	1.19	2.30
<b>Australia</b>	-0.14	-0.37	0.00	0.01	0.01	0.20
<b>Austria</b>	1.81	0.00	0.64	0.00	1.48	0.00
<b>Belgium</b>	2.76	0.34	0.71	0.01	3.44	0.17
<b>Brazil</b>	-4.38	-0.89	0.59	0.03	8.63	1.18
<b>Canada</b>	0.77	-0.19	0.09	0.01	0.27	0.05
<b>Chile</b>	-1.59	3.38	0.13	0.58	1.13	16.82
<b>China</b>	-6.64	0.71	0.86	0.01	19.87	0.74
<b>Czechia</b>	0.46	0.89	0.03	0.12	0.09	1.17
<b>Denmark</b>	2.32	-0.47	0.78	0.03	2.42	0.32
<b>Estonia</b>	1.47	1.30	0.20	0.16	0.97	2.48
<b>Finland</b>	1.60	0.21	0.66	0.01	1.15	0.07
<b>France</b>	1.92	-0.67	0.47	0.06	1.66	0.66
<b>Germany</b>	1.36	-0.61	0.27	0.05	0.84	0.54
<b>Greece</b>	0.76	-1.92	0.06	0.39	0.26	5.45
<b>Hungary</b>	0.80	0.64	0.08	0.05	0.29	0.60
<b>India</b>	-8.22	0.16	0.86	0.00	30.45	0.04
<b>Ireland</b>	2.03	-1.19	0.20	0.07	1.85	2.08
<b>Israel</b>	0.81	-1.43	0.04	0.12	0.30	3.00
<b>Italy</b>	0.40	-1.44	0.03	0.39	0.07	3.05
<b>Japan</b>	-0.05	-1.13	0.00	0.24	0.00	1.86
<b>Mexico</b>	-2.18	-0.60	0.33	0.03	2.14	0.53
<b>Netherlands</b>	2.22	1.60	0.41	0.21	2.22	3.76
<b>New Zealand</b>	0.88	-1.51	0.06	0.17	0.35	3.34
<b>Norway</b>	1.06	0.89	0.19	0.14	0.51	1.16
<b>Poland</b>	-0.23	3.56	0.00	0.49	0.02	18.63
<b>Portugal</b>	0.79	0.23	0.18	0.02	0.28	0.08
<b>Russia</b>	-2.82	-1.80	0.47	0.19	3.58	4.78
<b>Slovakia</b>	0.39	2.47	0.02	0.70	0.07	8.95
<b>Slovenia</b>	0.18	2.12	0.00	0.37	0.02	6.60
<b>South Africa</b>	-2.99	-1.55	0.55	0.15	4.04	3.56
<b>South Korea</b>	-1.08	0.29	0.13	0.01	0.52	0.12
<b>Spain</b>	0.97	-0.54	0.24	0.08	0.42	0.43
<b>Sweden</b>	2.01	0.28	0.64	0.01	1.81	0.11
<b>Switzerland</b>	2.51	0.28	0.57	0.01	2.84	0.11
<b>Turkey</b>	-2.85	-0.08	0.67	0.00	3.67	0.01
<b>United Kingdom</b>	2.15	-0.89	0.53	0.09	2.09	1.16
<b>United States</b>	0.73	-2.05	0.06	0.48	0.24	6.21

Table A31: Detailed results for the PCA applied to the variables of the insertion in the international regime.

### 7.3 Clustering

As indicated by figures A35 and A36, the clustering process led to select six classes. The hierarchical tree exhibits fairly long branches justifying such a clustering and the inter-inertia gains are still substantial. Table A32 indicates which variables characterize the most each cluster. Table A33 indicates the distribution of countries across clusters and provides a synthesis of each cluster characteristics.

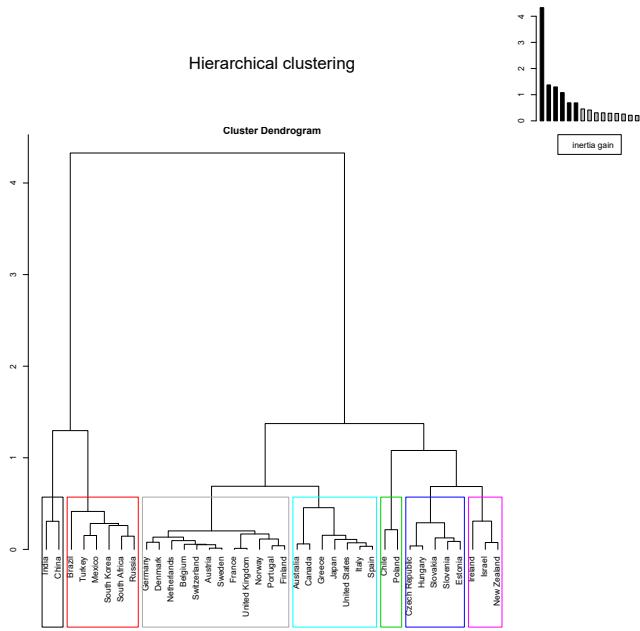


Figure A35: Hierarchical tree for the clustering of countries through their insertion into the international regime.

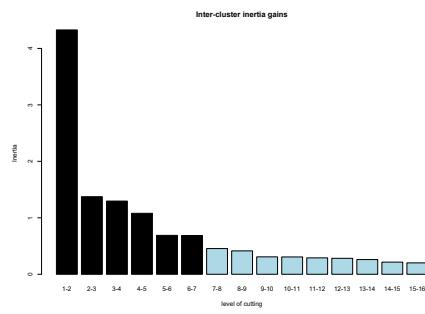


Figure A36: Hierarchical tree for the clustering of countries through their insertion into the international regime.

3									
v-test	p-value	Cat mean.	Overall mean	v-test	p-value	Cat mean.	Overall mean	v-test	p-value
Finglobfacto	-3.27	0.00	43.40	77.83	-3.62	0.01	57.10	-0.44	0.66
Finglobjiture	-4.19	0.00	16.45	65.02	-2.66	0.01	48.30	-0.45	0.65
Poiglobfacto	1.12	0.26	95.60	89.68	0.69	0.49	91.67	0.51	0.61
Poiglobjiture	0.18	0.86	93.30	92.30	-1.97	0.05	96.38	0.21	0.84
PrinAgri	4.95	0.00	0.14	0.03	0.28	0.78	0.04	0.03	-0.07
PrimIndus	-0.09	0.93	0.06	0.06	-0.07	0.95	0.06	0.06	0.20
SecConst	1.92	0.06	0.08	0.06	-1.17	0.24	0.05	0.06	0.06
SecManuf	1.75	0.08	0.23	0.23	1.17	0.24	0.18	1.41	0.16
Socglobfacto	-3.31	0.00	44.80	74.27	-2.80	0.01	60.71	-1.42	0.16
Socglobjiture	-4.66	0.00	52.05	82.21	-2.26	0.02	74.27	0.20	0.84
Ter_FIRE	-0.19	0.85	0.15	0.16	0.46	0.65	0.16	-3.22	0.07
Ter_Serv	-3.71	0.00	0.36	0.53	-2.18	0.03	0.48	0.53	0.49
Trateglobfacto	-1.69	0.09	31.99	56.22	-2.03	0.04	40.12	-1.42	0.10
Trateglobjiture	-3.41	0.00	45.25	80.60	-3.83	0.00	56.22	-0.35	0.73
4									
Finglobfacto	0.64	0.52	81.92	77.83	1.00	0.32	81.99	77.83	77.83
Finglobjiture	0.56	0.55	68.92	65.02	1.43	0.15	71.52	65.02	65.02
Poiglobfacto	-2.85	0.00	80.56	89.68	2.18	0.03	94.20	89.68	89.68
Poiglobjiture	-0.37	0.72	91.08	92.30	1.62	0.11	95.83	92.30	92.30
PrinAgri	0.33	0.74	0.04	0.03	-1.35	0.18	0.02	0.03	0.03
PrimIndus	0.43	0.67	0.07	0.06	-0.64	0.52	0.05	0.06	0.06
SecConst	0.76	0.76	0.06	0.06	-0.47	0.64	0.06	0.06	0.06
SecManuf	1.70	0.09	0.20	0.16	-2.34	0.02	0.13	0.16	0.16
Socglobfacto	-0.20	0.85	73.22	74.27	1.13	0.26	78.22	74.27	74.27
Socglobjiture	0.91	0.37	85.77	82.21	0.59	0.56	83.71	82.21	82.21
Ter_FIRE	-2.20	0.03	0.12	0.16	3.17	0.00	0.19	0.16	0.16
Ter_Serv	-0.46	0.64	0.52	0.53	-2.02	0.04	0.57	0.53	0.53
Trateglobfacto	3.01	0.00	82.78	56.22	-2.43	0.02	42.28	56.22	56.22
Trateglobjiture	1.41	0.16	89.40	80.60	1.81	0.07	87.97	80.60	80.60
6									
Finglobfacto	0.50	0.62	82.03	77.83	3.20	0.00	92.06	77.83	77.83
Finglobjiture	1.00	0.32	74.33	65.02	2.17	0.03	75.61	65.02	65.02
Poiglobfacto	-3.33	0.00	75.50	89.68	1.22	0.22	92.39	89.68	89.68
Poiglobjiture	-3.64	0.00	76.07	92.30	2.41	0.02	97.94	92.30	92.30
PrinAgri	-0.85	0.40	0.02	0.03	-1.14	0.26	0.02	0.03	0.03
PrimIndus	-0.98	0.03	0.03	0.06	-1.27	0.20	0.04	0.06	0.06
SecConst	-2.06	0.04	0.04	0.06	-0.16	0.87	0.06	0.06	0.06
SecManuf	-0.20	0.84	0.16	0.15	2.86	0.00	0.86	0.16	0.16
Socglobfacto	1.61	0.11	85.80	74.27	0.18	0.02	85.01	74.27	74.27
Socglobjiture	0.88	0.38	86.77	82.21	2.41	0.02	88.78	82.21	82.21
Ter_FIRE	1.80	0.07	0.19	0.16	-1.26	0.21	0.14	0.16	0.16
Ter_Serv	0.23	0.82	0.54	0.53	2.48	0.01	0.58	0.53	0.53
Trateglobfacto	0.25	0.55	59.80	56.22	2.78	0.01	73.33	56.22	56.22
Trateglobjiture	0.56	0.55	85.23	80.60	1.67	0.10	87.89	80.60	80.60

Table A32: Detailed results for the clustering of the insertion in the international regime, for the variables.

Cluster	Countries	Characterization	Details
1	China, India	Insertion through agriculture and secondary sectors and a weak integration into non-political globalizations	Biggest agricultural, manufacturing and construction sectors; weakest integration into de facto and de jure trade, social and financial globalizations, smallest non-FIRE services sector. Not significant: Strongest integration into de facto political globalization and stronger integration into de jure political globalization (< 3, and 7), smaller extractive and energy (>2, > 5, 6, 7) and FIRE services (> 3, 4, 7 sectors, < 3, and 7).
2	Brazil, Mexico, South Africa, South Korea, Turkey	Insertion through a weak integration into all dimensions of globalization	Weakest integration into de jure social globalizations and weaker integration into de jure political (> 6), trade (> 1) and financial (> 1) globalizations, smaller non-FIRE services sector (> 1). Not significant: bigger manufacturing (< 1 and 4), agriculture (< 1 and =1) and FIRE services sectors (< 5, and 6), stronger integration in de facto political globalization (< 1, 5 and 7); smaller extractive and energy (=1, > 5, 6 and 7) and construction (> 6) sectors, weaker integration into de facto financial (> 1), social (> 1) and trade (>1) globalizations.
3	Chile, Poland	Insertion through the extractive and energy sector	Biggest extractive and energy sector ; smallest manufacturing and FIRE services sectors. Not significant: bigger construction sector (< 1); stronger integration into de jure political (< 5 and 7), social (< 4.5, 6, and 7) and trade (< 4, 5, 6 and 7) globalizations; smaller agriculture (> 5, 6 and 7) and non-FIRE services (> 1 and 2) sectors, weaker integration into de facto trade (> 1, 2 and 5), political (> 4 and 6) and social (> 1 and 2) globalizations and into de jure (> 1 and 2) and de facto (> 1 and 2) financial globalizations
4	Czechia, Estonia, Hungary, Slovakia, Slovenia	Insertion through manufacturing sector and trade globalization	Biggest integration into de facto trade globalization, bigger manufacturing sector (< 1); smaller FIRE services sector (> 3) and weaker integration into de facto political globalization (> 6). Not significant: strongest integration into de jure trade globalization; stronger integration into de jure social (< 6 and 7), stronger integration into de jure and de facto financial globalizations (< 5, 6 and 7), bigger extractive and energy (< 3, = 2) and construction (< 1 and 3, = 5 and 7) sectors; weaker integration into de facto social (> 1, 2 and 3) and de jure political (> 2 and 6) globalizations, smaller non-FIRE services sector (> 3).
5	Australia, Canada, France, Greece, Italy, Japan, Portugal, Spain, UK, USA	Insertion through services sectors and political globalization	Strongest integration into de facto political services sector (> 3) and weaker integration into de facto political (< 1) and de jure trade (< 4) globalizations; smaller manufacturing sector (> 3), weaker integration into de facto trade globalization (> 1 and 2). Not significant: Stronger integration into de jure political (< 7), financial (< 6 and 7) and social (< 4, 5 and 6) globalizations, bigger construction sector (< 1 and 3, = 4 and 7); smaller extractive and energy sector (> 6 and 7) and smallest agriculture sector (= 6 and 7).
6	Ireland, Israel, New Zealand	Insertion through FIRE services and a weak integration into political globalization	Biggest FIRE services sector (= 5) ; smallest construction sector; weakest integration into de jure and de facto political globalizations. Not significant: Stronger integration into de jure (< 7) and de facto (< 7) financial and into de jure (< 4, 5 and 7) and de facto (< 4 and 7) trade globalizations, bigger non-FIRE services sector (< 5 and 7); smaller manufacturing (> 3 and 5), smallest agriculture (= 5 and 7) and extractive and energy sectors.
7	Austria, Belgium, Denmark, Finland, Germany, Netherlands, Norway, Sweden, Switzerland	Insertion through non-FIRE services and a strong integration into all dimensions of globalization	Strongest integration into de jure and de facto financial and de jure social and political globalizations, stronger integration into de jure (< 4 and 5) and de facto (< 4) trade and into de jure social (< 6) globalizations, biggest non-FIRE services sector. Not significant: Stronger integration into de facto political globalization (< 1 and 5), bigger manufacturing sector (< 1, 2 and 4), smaller construction (> 2 and 6), extractive and energy (> 6) and FIRE services (> 3 and 4) sectors, smallest agriculture sector (= 5 and 6).

Table A33: Countries distribution across clusters and characterization for the insertion in the international regime.

## 8 Raw data for the modelling of the modes of regulation

	<b>relevn</b>	<b>monreg</b>	<b>wagelab</b>	<b>comp</b>	<b>state</b>	<b>interreg</b>
<b>Australia</b>	relevn_3	monreg_3	wagelab_2	comp_1	state_5	interreg_5
<b>Austria</b>	relevn_5	monreg_3	wagelab_1	comp_2	state_6	interreg_7
<b>Belgium</b>	relevn_3	monreg_3	wagelab_1	comp_2	state_6	interreg_7
<b>Brazil</b>	relevn_2	monreg_5	wagelab_2	comp_4	state_2	interreg_2
<b>Canada</b>	relevn_2	monreg_3	wagelab_2	comp_2	state_5	interreg_5
<b>Chile</b>	relevn_2	monreg_4	wagelab_5	comp_1	state_3	interreg_3
<b>China</b>	relevn_1	monreg_4	wagelab_4	comp_5	state_2	interreg_1
<b>Czechia</b>	relevn_2	monreg_3	wagelab_3	comp_2	state_5	interreg_4
<b>Denmark</b>	relevn_5	monreg_1	wagelab_1	comp_1	state_6	interreg_7
<b>Estonia</b>	relevn_3	monreg_1	wagelab_2	comp_2	state_5	interreg_4
<b>Finland</b>	relevn_5	monreg_1	wagelab_1	comp_2	state_6	interreg_7
<b>France</b>	relevn_4	monreg_1	wagelab_1	comp_2	state_4	interreg_5
<b>Germany</b>	relevn_5	monreg_1	wagelab_1	comp_1	state_5	interreg_7
<b>Greece</b>	relevn_4	monreg_3	wagelab_3	comp_4	state_4	interreg_5
<b>Hungary</b>	relevn_2	monreg_3	wagelab_2	comp_2	state_4	interreg_4
<b>India</b>	relevn_1	monreg_4	wagelab_5	comp_5	state_2	interreg_1
<b>Ireland</b>	relevn_4	monreg_1	wagelab_3	comp_1	state_5	interreg_6
<b>Israel</b>	relevn_4	monreg_3	wagelab_2	comp_4	state_1	interreg_6
<b>Italy</b>	relevn_4	monreg_3	wagelab_1	comp_2	state_4	interreg_5
<b>Japan</b>	relevn_4	monreg_2	wagelab_2	comp_1	state_5	interreg_5
<b>Mexico</b>	relevn_2	monreg_3	wagelab_5	comp_3	state_2	interreg_2
<b>Netherlands</b>	relevn_5	monreg_1	wagelab_1	comp_1	state_6	interreg_7
<b>New Zealand</b>	relevn_3	monreg_3	wagelab_2	comp_1	state_6	interreg_6
<b>Norway</b>	relevn_5	monreg_1	wagelab_1	comp_2	state_6	interreg_7
<b>Poland</b>	relevn_2	monreg_3	wagelab_3	comp_2	state_2	interreg_3
<b>Portugal</b>	relevn_4	monreg_3	wagelab_3	comp_2	state_4	interreg_5
<b>Russia</b>	relevn_1	monreg_5	wagelab_2	comp_3	state_1	interreg_2
<b>Slovakia</b>	relevn_4	monreg_3	wagelab_3	comp_2	state_4	interreg_4
<b>Slovenia</b>	relevn_4	monreg_3	wagelab_1	comp_2	state_4	interreg_4
<b>South Africa</b>	relevn_1	monreg_4	wagelab_5	comp_4	state_2	interreg_2
<b>South Korea</b>	relevn_2	monreg_3	wagelab_2	comp_3	state_3	interreg_2
<b>Spain</b>	relevn_4	monreg_3	wagelab_3	comp_2	state_4	interreg_5
<b>Sweden</b>	relevn_5	monreg_1	wagelab_1	comp_1	state_6	interreg_7
<b>Switzerland</b>	relevn_5	monreg_1	wagelab_2	comp_1	state_5	interreg_7
<b>Turkey</b>	relevn_2	monreg_4	wagelab_5	comp_4	state_2	interreg_2
<b>United Kingdom</b>	relevn_4	monreg_1	wagelab_2	comp_1	state_6	interreg_5
<b>United States</b>	relevn_2	monreg_3	wagelab_2	comp_1	state_3	interreg_5

Table A34: Raw data for the MCA. Each modality of the variable is a qualitative variable used as an input for the MCA.

## 9 Full sample

### 9.1 Multiple correspondences analysis

The first two dimensions of the MCA express 31.87% of the total dataset inertia, a value higher than the reference value 20.73% of the 0.95-quantile of the inertia percentages distribution obtained by simulating 1245 comparable data tables following a uniform distribution. The information contained in this plane is thus significant. Moreover, the first five axes present an amount of inertia higher than those obtained by the 0.95-quantile of random distributions (58.74% against 44.43%). I kept therefore these axis for the analysis.

Axis 1 distinguishes between countries exhibiting a high frequency for *interreg\_2*, *interreg\_1*,

*comp\_4*, *comp\_5* and *wagelab\_5* and *relevn\_1* to countries with a high frequency for *interreg\_7*, *relevn\_5*, *wagelab\_1*, *monreg\_1*, *state\_6* and *comp\_1* and a low frequency for *monreg\_4* and *state\_2*. The second axis opposes countries with a high frequency for *interreg\_7*, *relevn\_5*, *wagelab\_1*, *monreg\_1*, *state\_6* and *comp\_1* and a low frequency for *monreg\_4* and *state\_2* to countries sharing a high frequency for *interreg\_5*, *state\_4*, *wagelab\_3*, *relevn\_4* and *monreg\_3*. Axis 3 discriminates between countries with a high frequency for *relevn\_2*, *wagelab\_5*, *wagelab\_2*, *state\_1* and *monreg\_5* and a low frequency for *relevn\_4* and *state\_4* to countries sharing a high frequency for *state\_4*, *comp\_2*, *relevn\_4* and *interreg\_5* and a low frequency for *relevn\_2* and *interreg\_2*. The fourth axis 4 opposes countries with a high frequency for *wagelab\_2*, *state\_1* and *monreg\_5* to countries sharing a high frequency for *relevn\_2* and *wagelab\_5* and a low frequency for *relevn\_4* and *state\_4*. Finally, axis 5 distinguishes countries sharing a high frequency for *comp\_1* and a low frequency for *comp\_2* to countries with a high frequency *comp\_2*, *comp\_4*, *state\_2* and *interreg\_4* and a low frequency for *comp\_1*.

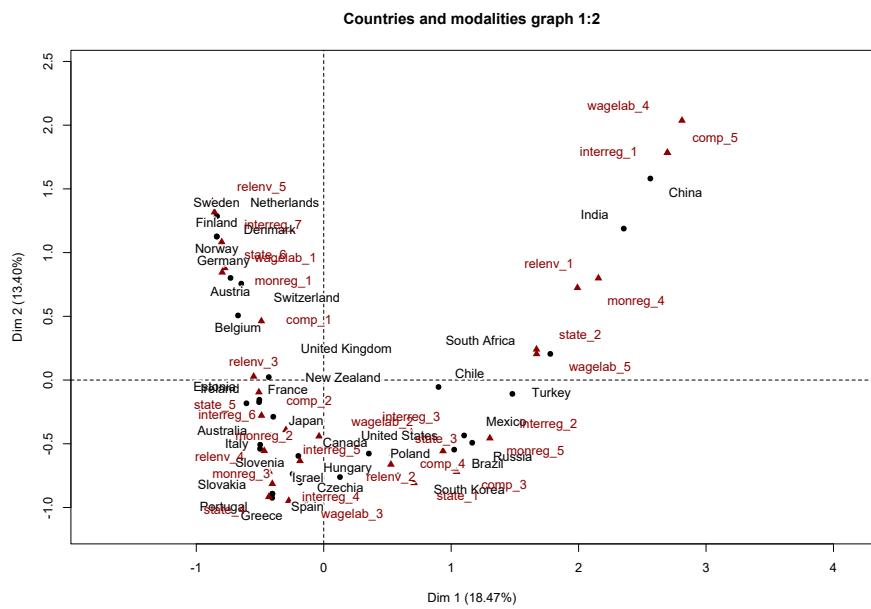


Figure A37: Factorial plans of axes 1 and 2 for the countries and the modalities of each variable for the full sample.

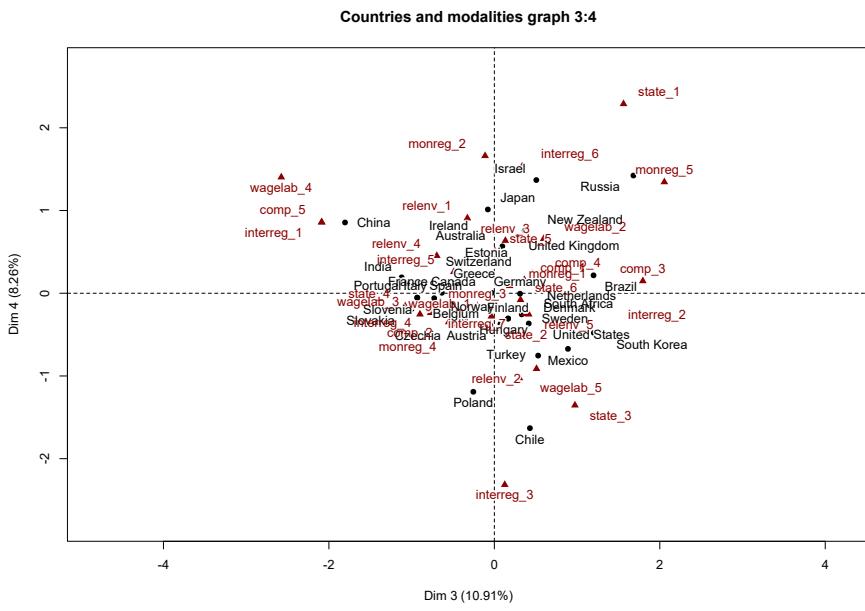


Figure A38: Factorial plans of axes 3 and 4 for the countries and the modalities of each variable for the full sample.

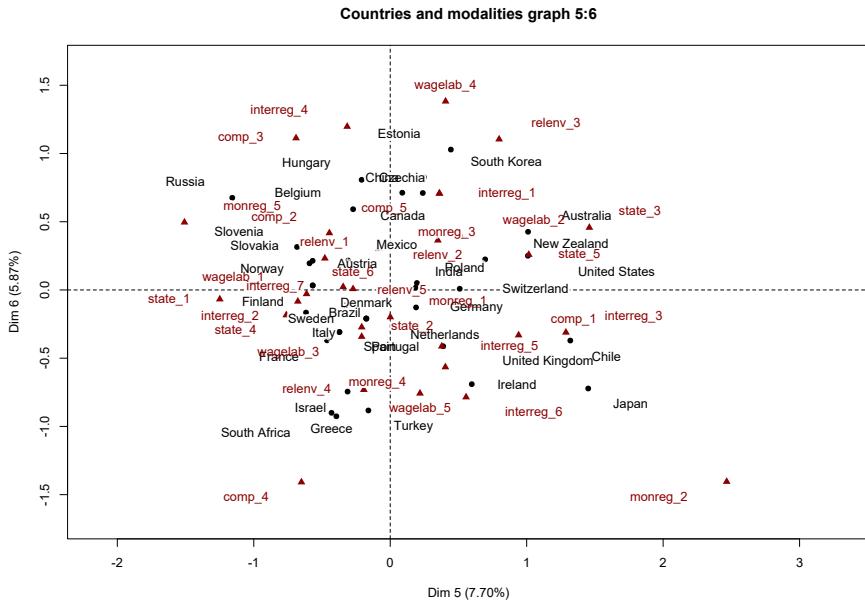


Figure A39: Factorial plans of axes 5 and 6 for the countries and the modalities of each variable for the full sample. Axis 6 was not considered in the analysis is only used to drawing the plan.

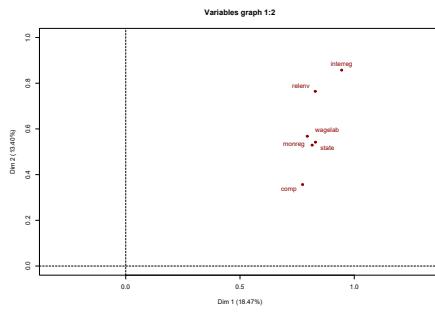


Figure A40: Correlation of the variables to the axes 1 and 2 for the full sample. The more a variable is on the right side, the more it is correlated to the horizontal axis and the higher is a variable, the stronger it is correlated to the vertical axis.

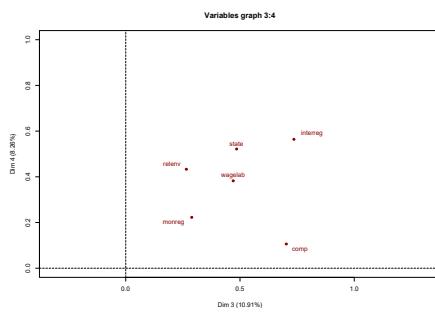


Figure A41: Correlation of the variables to the axes 3 and 4 for the full sample.

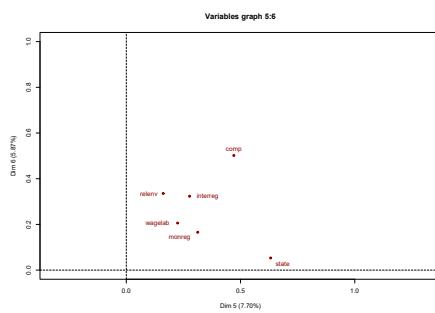


Figure A42: Correlation of the variables to the axes 5 and 6 for the full sample.

	Coordinate	Dim 1	Dim 2	Dim 3	Dim 4	Dim 5	Square cosines	Dim 1	Dim 2	Dim 3	Dim 4	Dim 5	Contribution	Dim 1	Dim 2	Dim 3	Dim 4	Dim 5
relenv_1	2.16	0.80	-0.33	0.91	-0.48	0.56	0.08	0.01	0.10	0.03	10.07	1.91	0.39	4.00	1.20			
relenv_2	0.53	-0.66	0.51	-0.91	0.35	0.10	0.16	0.10	0.31	0.05	1.51	3.28	2.38	1.00	1.10			
relenv_3	0.03	0.13	0.64	0.80	0.04	0.00	0.00	0.00	0.05	0.08	0.66	0.00	0.07	1.96	3.31			
relenv_4	-0.43	-0.72	-0.70	0.45	-0.19	0.08	0.22	0.21	0.09	0.02	4.23	4.88	2.74	0.54				
relenv_5	-0.87	1.40	0.42	-0.25	-0.33	0.21	0.54	0.05	0.02	0.03	3.30	11.72	1.27	0.63	1.14			
monreg_1	-0.78	0.88	0.19	0.99	0.00	0.26	0.33	0.01	0.00	0.00	3.59	6.36	0.35	0.11	0.00			
monreg_2	-0.47	-0.36	1.66	2.47	0.01	0.01	0.08	0.08	0.08	0.17	0.23	0.12	0.01	3.34	7.91			
monreg_3	-0.19	-0.63	-0.21	-0.15	-0.08	0.03	0.38	0.04	0.02	0.01	0.34	5.40	0.70	0.50	0.16			
monreg_4	1.99	0.72	-0.52	0.40	0.62	0.08	0.03	0.04	0.03	0.03	10.74	1.96	1.00	1.66				
monreg_5	1.20	-0.67	2.06	1.35	-1.51	0.08	0.24	0.10	0.13	0.56	0.67	7.75	4.38	5.92				
wagelab_1	0.85	-0.80	-0.04	0.60	0.66	-0.61	-0.28	0.27	0.30	0.03	3.79	5.87	0.01	1.04	5.38			
wagelab_2	-0.04	-0.44	-0.95	-0.20	-0.25	-0.21	0.02	0.21	0.19	0.11	0.24	0.14	0.01	1.89	4.24	6.83		
wagelab_3	-0.27	-0.95	2.04	-2.58	1.40	0.41	0.22	0.12	0.18	0.02	0.29	4.69	5.19	0.55	0.40			
wagelab_4	2.81	0.21	0.30	-1.02	0.22	0.44	0.01	0.01	0.06	0.01	4.28	3.10	6.09	2.39	0.21			
wagelab_5	1.67	0.46	0.36	0.16	0.94	0.12	0.10	0.01	0.16	0.01	7.56	0.16	0.42	6.35	0.31			
comp_1	-0.49	-0.49	-0.28	-0.35	-0.35	-0.45	0.16	0.05	0.21	0.08	0.43	1.92	1.45	0.38	13.82			
comp_2	-0.49	-0.49	-0.28	-0.35	-0.35	-0.45	0.16	0.05	0.21	0.08	0.14	1.94	0.87	4.18	2.20	3.88		
comp_3	1.04	-0.72	1.80	0.15	-0.69	0.10	0.05	0.28	0.00	0.03	1.16	8.87	0.01	1.16	8.87	0.08		
comp_4	0.94	-0.56	0.54	0.22	-0.65	0.14	0.05	0.05	0.01	0.07	2.37	1.16	1.34	2.75	0.30			
comp_5	2.70	1.78	-2.09	0.86	0.36	0.42	0.18	0.25	0.04	0.01	7.88	4.75	7.99	1.79	0.34			
state_1	-0.81	1.56	2.29	-1.25	0.03	0.04	0.14	0.04	0.09	0.09	0.54	4.97	12.70	4.06				
state_2	1.67	0.24	-0.05	-0.38	-0.21	0.65	0.01	0.00	0.03	0.01	10.57	0.30	0.01	1.21	0.40			
state_3	0.54	-0.58	0.97	-1.35	1.46	0.03	0.03	0.08	0.16	0.19	0.47	0.75	2.61	6.66	8.31			
state_4	-0.43	-0.92	-1.08	-0.16	-0.76	0.05	0.23	0.01	0.16	0.16	5.02	8.53	0.23	6.04				
state_5	-0.51	-0.10	0.01	0.51	1.02	0.07	0.00	0.07	0.28	0.00	1.12	0.05	0.00	2.52	10.73			
state_6	-0.80	1.08	0.32	-0.08	0.32	-0.27	0.21	0.38	0.03	0.00	3.13	7.89	0.83	0.07	0.87			
interreg_1	2.70	1.78	-2.09	0.86	0.36	0.42	0.18	0.25	0.04	0.01	7.88	4.75	7.99	1.79	0.34			
interreg_2	1.30	-0.46	1.39	-0.14	-0.68	0.33	0.04	0.37	0.00	0.09	5.53	10.59	0.15	3.58				
interreg_3	0.69	-0.41	0.13	-2.31	1.29	0.03	0.01	0.00	0.31	0.10	0.51	0.25	0.03	12.98	4.31			
interreg_4	-0.40	-0.81	-0.77	-0.24	-0.32	0.03	0.10	0.09	0.02	0.02	2.47	2.72	0.34	2.72	0.65			
interreg_5	-0.40	-0.66	-0.49	0.26	0.38	0.06	0.16	0.09	0.03	0.05	0.85	3.29	2.20	0.81	1.86			
interreg_6	-0.30	-0.39	0.34	1.53	0.56	0.01	0.01	0.21	0.03	0.14	0.34	0.31	8.55	1.21				
interreg_7	-0.86	1.32	0.37	-0.25	-0.35	0.24	0.56	0.04	0.02	0.04	3.59	11.67	1.13	0.68	1.39			

Table A35: Detailed results of the MCA applied to the full sample for the variables.

	Coordinate		Square cosines					Contribution						
	Dim 1	Dim 2	Dim 3	Dim 4	Dim 5	Dim 1	Dim 2	Dim 3	Dim 4	Dim 5	Dim 1	Dim 2	Dim 3	Dim 4
Australia	-0.40	-0.29	0.10	0.57	1.01	0.05	0.00	0.10	0.31	0.51	0.37	0.05	2.34	7.96
Austria	-0.73	-0.80	0.01	-0.35	-0.27	0.22	0.26	0.00	1.74	2.88	0.03	1.01	2.73	0.58
Belgium	-0.67	0.51	0.01	-0.13	-0.22	0.14	0.08	0.00	1.47	1.15	0.00	0.12	0.58	0.97
Brazil	1.02	-0.55	1.20	0.22	-0.62	0.17	0.05	0.23	0.01	0.02	3.41	1.34	0.34	2.97
Canada	-0.20	-0.60	0.00	0.49	0.02	0.16	0.00	0.00	0.11	0.13	1.59	0.01	1.88	0.00
Chile	0.90	-0.05	0.43	-1.63	1.32	0.11	0.00	0.02	0.34	0.23	2.64	0.01	1.02	19.34
China	2.56	1.58	-1.81	0.86	0.24	0.44	0.17	0.22	0.05	0.00	21.36	11.21	5.32	13.59
Czechia	-0.24	-0.74	-0.45	-0.38	0.09	0.02	0.17	0.06	0.05	0.00	0.19	2.43	1.13	0.06
Denmark	-0.84	1.29	0.38	-0.17	-0.18	0.25	0.60	0.05	0.01	0.01	0.19	0.81	0.20	0.06
Estonia	-0.51	-0.10	0.36	0.44	0.06	0.01	0.00	0.03	0.05	0.83	0.11	0.05	0.93	1.54
Finland	-0.84	1.13	0.17	-0.31	-0.57	0.26	0.47	0.01	0.04	0.12	2.29	5.69	0.15	0.68
France	-0.61	-0.18	-0.63	0.01	-0.46	0.15	0.01	0.16	0.00	0.09	1.20	0.15	2.21	1.67
Germany	-0.79	1.03	0.31	-0.01	0.19	0.22	0.37	0.03	0.00	0.01	2.01	4.78	0.53	0.00
Greece	-0.14	-0.95	0.10	-0.43	-0.67	0.07	0.27	0.13	0.00	0.05	0.07	4.06	2.49	0.08
Hungary	-0.19	-0.80	-0.36	-0.31	-0.21	0.01	0.23	0.05	0.03	0.02	0.11	2.90	0.70	0.71
India	2.35	1.19	-1.12	0.19	0.55	0.14	0.13	0.00	0.00	0.00	18.02	6.33	6.91	0.34
Ireland	-0.51	-0.17	0.68	0.60	0.06	0.01	0.01	0.11	0.08	0.84	0.14	0.15	3.38	0.27
Israel	0.13	-0.76	0.51	1.37	-0.31	0.00	0.09	0.04	0.28	0.01	0.05	2.60	1.42	13.61
Italy	-0.50	-0.51	-0.73	-0.06	-0.49	0.11	0.11	0.23	0.00	0.11	0.81	1.15	2.91	0.03
Japan	-0.43	-0.43	-0.08	1.01	-1.45	0.02	0.02	0.00	0.13	0.26	0.59	0.83	0.03	1.85
Mexico	1.10	-0.44	0.89	-0.67	-0.31	0.24	0.04	0.15	0.09	0.02	3.95	4.36	3.29	16.43
Netherlands	-0.84	1.29	0.38	-0.17	-0.18	0.25	0.60	0.05	0.01	0.01	2.29	7.41	0.81	0.20
New Zealand	-0.43	0.02	0.37	0.75	0.70	0.04	0.00	0.03	0.12	0.11	0.61	0.00	0.74	0.24
Norway	-0.84	1.13	0.17	-0.31	-0.57	0.26	0.47	0.01	0.04	0.12	2.29	5.69	0.15	3.78
Poland	0.35	-0.58	-0.25	-1.19	0.20	0.02	0.06	0.01	0.27	0.01	0.41	1.49	0.36	0.30
Portugal	-0.40	-0.89	-0.93	-0.05	-0.37	0.06	0.31	0.00	0.05	0.53	3.57	4.78	0.02	1.08
Russia	1.17	-0.49	1.68	-1.42	-1.16	0.13	0.02	0.28	0.20	0.13	4.41	1.09	15.56	10.46
Slovakia	-0.40	-0.92	-1.00	-0.19	-0.57	0.05	0.27	0.31	0.01	0.10	0.53	3.83	5.49	0.26
Slovenia	-0.50	-0.54	-0.79	-0.20	-0.68	0.09	0.10	0.22	0.01	0.16	0.81	1.31	3.47	0.28
South Africa	1.78	0.21	0.33	-0.26	-0.40	0.51	0.01	0.02	0.01	0.03	10.28	0.19	0.60	3.64
South Korea	0.58	-0.75	1.20	-0.48	0.25	0.06	0.10	0.26	0.04	0.01	1.11	2.51	7.96	1.22
Spain	-0.40	-0.89	-0.93	-0.05	-0.37	0.06	0.31	0.34	0.00	0.05	0.53	3.57	4.78	0.02
Sweden	-0.84	1.29	0.38	-0.17	-0.18	0.25	0.60	0.05	0.01	0.01	2.29	7.41	0.81	1.08
Switzerland	-0.65	0.76	0.46	0.25	0.51	0.21	0.08	0.02	0.09	1.36	2.57	1.17	0.46	2.03
Turkey	1.48	-0.11	0.53	-0.75	-0.16	0.42	0.00	0.05	0.11	0.01	7.12	0.05	1.54	4.13
United Kingdom	-0.54	0.13	0.07	0.42	0.39	0.12	0.01	0.00	0.07	0.06	0.93	0.08	0.02	1.18
United States	-0.01	-0.54	0.42	-0.37	1.01	0.00	0.08	0.05	0.04	0.28	0.00	1.31	0.95	0.97

Table A36: Detailed results of the MCA applied to the full sample for the countries.

## 9.2 Clustering

As indicated by figures A43 and A44, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying a such a clustering and the inter-inertia gains are still substantial. Tables A37 and A38 indicate which variables characterize the most each cluster. Figures A45, A46 and A47 show the composition of the clusters and their position on the factorial plans built from the selected axes. Finally, table A39 sums up the characteristics of each mode of regulation identified in the full sample.

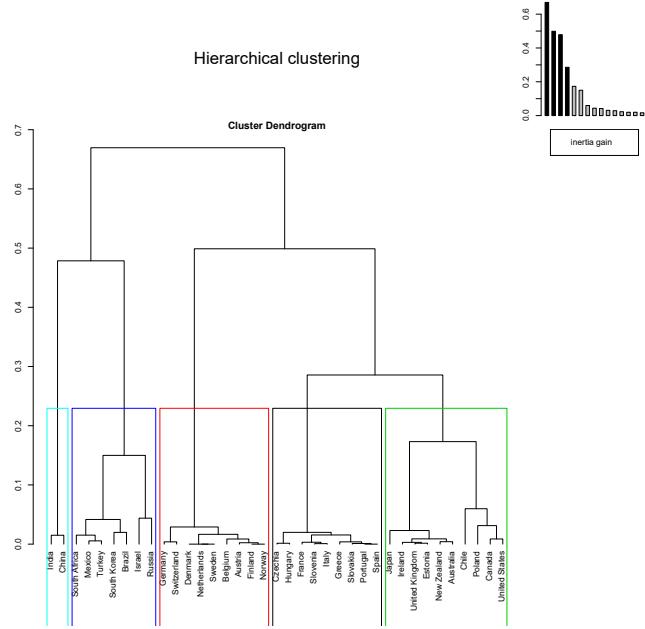


Figure A43: Hierarchical tree for the clustering of modes of regulation upon the full sample.

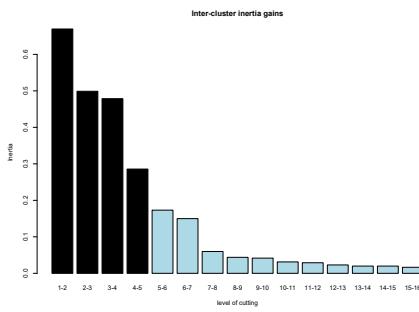


Figure A44: Inertia gain to partition the full sample in five clusters.

	Cla/Mod	Mod/Cla	1	Global	p.value	v.test	Cla/Mod	Mod/Cla	2	Global	p.value	v.test	Cla/Mod	Mod/Cla	3	Global	p.value	v.test
comp_1	0.00	0.00	37.50	0.38	-0.89	0.00	0.00	0.00	37.50	0.03	-2.22	33.33	66.67	37.50	0.34	0.96		
comp_2	0.00	0.00	6.25	0.88	-0.16	0.00	0.00	6.25	0.63	-0.49	100.00	33.33	6.25	0.19	1.32			
comp_3	0.00	0.00	1.875	0.65	-0.45	100.00	50.00	18.75	0.04	2.10	0.00	18.75	0.51	-0.66				
comp_4	0.00	0.00	2.500	0.55	-0.60	75.00	50.00	25.00	0.13	1.53	0.00	25.00	0.39	-0.85				
comp_5	100.00	100.00	12.50	0.01	2.64	0.00	0.00	12.50	0.38	-0.89	0.00	12.50	0.65	-0.45				
interreg_1	100.00	100.00	12.50	0.01	2.64	0.00	0.00	12.50	0.38	-0.89	0.00	12.50	0.65	-0.45				
interreg_2	0.00	0.00	37.50	0.38	-0.89	100.00	100.00	37.50	0.00	3.84	0.00	37.50	0.21	-1.24				
interreg_3	0.00	0.00	6.25	0.88	-0.16	0.00	0.00	6.25	0.63	-0.49	100.00	33.33	6.25	0.19	1.32			
interreg_4	0.00	0.00	25.00	0.55	-0.60	0.00	0.00	25.00	0.12	-1.57	50.00	66.67	25.00	0.14	1.47			
interreg_5	0.00	0.00	12.50	0.76	-0.31	0.00	0.00	12.50	0.38	-0.89	0.00	12.50	0.65	-0.45				
interreg_6	0.00	0.00	6.25	0.88	-0.16	0.00	0.00	6.25	0.63	-0.49	0.00	6.25	0.81	-0.24				
interreg_7	0.00	0.00	6.25	0.88	-0.16	0.00	0.00	6.25	0.63	-0.49	0.00	6.25	0.81	-0.24				
monreg_1	0.00	0.00	6.25	0.88	-0.16	0.00	0.00	6.25	0.63	-0.49	0.00	6.25	0.81	-0.24				
monreg_2	0.00	0.00	6.25	0.88	-0.16	0.00	0.00	6.25	0.63	-0.49	0.00	6.25	0.81	-0.24				
monreg_3	0.00	0.00	43.75	0.30	-1.04	28.57	33.33	43.75	0.57	-0.57	28.57	66.67	43.75	0.46	0.74			
monreg_4	40.00	100.00	31.25	0.08	1.73	40.00	33.33	31.25	0.90	0.13	20.00	33.33	31.25	0.92	0.10			
monreg_5	0.00	0.00	12.50	0.76	-0.31	100.00	33.33	12.50	0.13	1.53	0.00	12.50	0.65	-0.45				
relev_1	50.00	100.00	25.00	0.05	1.96	50.00	33.33	25.00	0.61	0.51	0.00	25.00	0.39	-0.85				
relev_2	0.00	0.00	43.75	0.30	-1.04	57.14	66.67	43.75	0.21	1.26	42.86	100.00	43.75	0.06	1.86			
relev_3	0.00	0.00	12.50	0.76	-0.31	0.00	0.00	12.50	0.38	-0.89	0.00	12.50	0.65	-0.45				
relev_4	0.00	0.00	12.50	0.76	-0.31	0.00	0.00	12.50	0.38	-0.89	0.00	12.50	0.65	-0.45				
relev_5	0.00	0.00	6.25	0.88	-0.16	0.00	0.00	6.25	0.63	-0.49	0.00	6.25	0.81	-0.24				
state_1	0.00	0.00	12.50	0.76	-0.31	50.00	16.67	12.50	0.75	0.32	0.00	12.50	0.65	-0.45				
state_2	33.33	100.00	37.50	0.13	1.53	66.67	66.67	37.50	0.10	1.65	0.00	37.50	0.21	-1.24				
state_3	0.00	0.00	18.75	0.65	-0.45	33.33	16.67	18.75	0.91	-0.11	66.67	18.75	0.21	-1.79				
state_4	0.00	0.00	25.00	0.55	-0.60	0.00	0.00	25.00	0.12	-1.57	25.00	33.33	25.00	0.74	0.33			
state_5	0.00	0.00	6.25	0.88	-0.16	0.00	0.00	6.25	0.63	-0.49	0.00	6.25	0.81	-0.24				
state_6	0.00	0.00	62.50	0.13	-1.53	30.00	50.00	62.50	0.48	-0.70	20.00	66.67	62.50	0.91	0.11			
wagelab_2	0.00	100.00	6.25	0.13	1.53	0.00	0.00	6.25	0.63	-0.49	0.00	6.25	0.81	-0.24				
wagelab_4	100.00	50.00	31.25	0.63	0.49	60.00	50.00	31.25	0.28	1.09	20.00	33.33	31.25	0.92	0.10			

Table A37: Detailed results for the clustering on the full sample, for the variables of the clusters 1 to 3. Each modality of the variables corresponds to a cluster for this variable as presented in sections 2 to 7. *Cla/Mod* is the proportion of countries of cluster *i* amongst the countries with the modality *j* of the variable *x*; *Mod/Cla* is the proportion of countries of cluster *i* with the modality *j* of the variable *x*; *Global* is the proportion of countries with the modality *j* of the variable *x* in the whole sample. Each modality corresponds to one kind of each institutional form as shown in table A5.

	Cla/Mod	Mod/Cla	4	Global	p.value	v.test	Cla/Mod	Mod/Cla	Global	p.value	v.test
comp_1	50.00	75.00	37.50	0.13	1.53	-0.32	16.67	100.00	37.50	0.38	0.89
comp_2	0.00	6.25	0.75	0.39	-0.85	0.00	0.00	0.00	6.25	0.94	-0.08
comp_3	0.00	0.00	18.75	0.97	-0.03	0.00	0.00	0.00	18.75	0.81	-0.24
comp_4	25.00	25.00	25.00	0.55	-0.60	0.00	0.00	0.00	25.00	0.75	-0.32
comp_5	0.00	0.00	12.50	0.55	-0.60	0.00	0.00	0.00	12.50	0.88	-0.16
interreg_1	0.00	0.00	12.50	0.55	-0.60	0.00	0.00	0.00	12.50	0.88	-0.16
interreg_2	0.00	0.00	37.50	0.12	-1.57	0.00	0.00	0.00	37.50	0.63	-0.49
interreg_3	0.00	0.00	6.25	0.75	-0.32	0.00	0.00	0.00	6.25	0.94	-0.08
interreg_4	50.00	50.00	25.00	0.27	1.10	0.00	0.00	0.00	25.00	0.75	-0.32
interreg_5	100.00	50.00	12.50	0.05	1.96	0.00	0.00	0.00	12.50	0.88	-0.16
interreg_6	0.00	6.25	0.75	-0.32	100.00	100.00	100.00	100.00	6.25	0.06	1.86
interreg_7	0.00	6.25	0.75	-0.32	100.00	100.00	100.00	100.00	6.25	0.06	1.86
monreg_1	0.00	25.00	6.25	0.25	1.15	0.00	0.00	0.00	6.25	0.94	-0.08
monreg_2	100.00	75.00	43.75	0.21	1.25	0.00	0.00	0.00	43.75	0.56	-0.58
monreg_3	42.86	0.00	31.25	0.18	-1.34	0.00	0.00	0.00	31.25	0.69	-0.40
monreg_4	0.00	0.00	12.50	0.55	-0.60	0.00	0.00	0.00	12.50	0.88	-0.16
monreg_5	0.00	0.00	25.00	0.27	-1.10	0.00	0.00	0.00	25.00	0.75	-0.32
reenv_1	0.00	0.00	43.75	0.07	-1.82	0.00	0.00	0.00	43.75	0.56	-0.58
reenv_2	100.00	50.00	12.50	0.05	1.96	0.00	0.00	0.00	12.50	0.88	-0.16
reenv_3	100.00	50.00	12.50	0.05	1.96	0.00	0.00	0.00	12.50	0.88	-0.16
reenv_4	0.00	0.00	6.25	0.75	-0.32	100.00	100.00	100.00	6.25	0.06	1.86
reenv_5	0.00	0.00	25.00	0.50	0.67	0.00	0.00	0.00	12.50	0.88	-0.16
state_1	50.00	0.00	37.50	0.12	-1.57	0.00	0.00	0.00	37.50	0.63	-0.49
state_2	0.00	0.00	18.75	0.39	-0.85	0.00	0.00	0.00	18.75	0.81	-0.24
state_3	0.00	50.00	25.00	0.27	1.10	25.00	100.00	100.00	25.00	0.25	1.15
state_4	100.00	25.00	6.25	0.25	1.15	0.00	0.00	0.00	6.25	0.94	-0.08
wagelab_2	40.00	100.00	62.50	0.12	1.57	10.00	100.00	100.00	62.50	0.63	0.49
wagelab_4	0.00	0.00	6.25	0.75	-0.32	0.00	0.00	0.00	6.25	0.94	-0.08
wagelab_5	0.00	0.00	34.25	0.18	-1.34	0.00	0.00	0.00	34.25	0.69	-0.40

Table A38: Detailed results for the clustering on the full sample, for the variables of the clusters 4 to 5. See table A37 for the interpretation of the data.

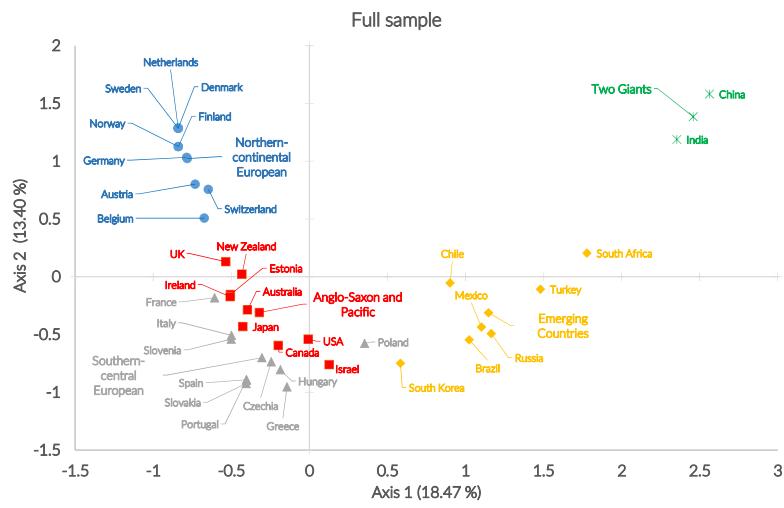


Figure A45: Composition of the clusters identified in the full sample and projection on the factorial plan of the dimensions 1 and 2 for the full sample.

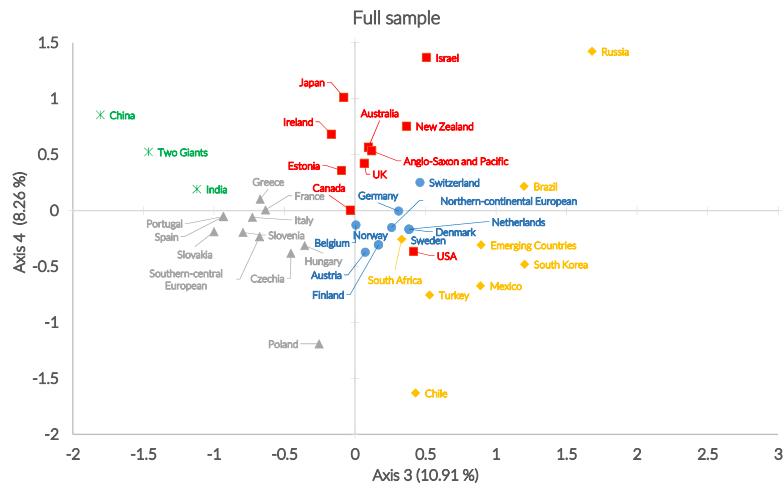


Figure A46: Composition of the clusters identified in the full sample and projection on the factorial plan of the dimensions 3 and 4.

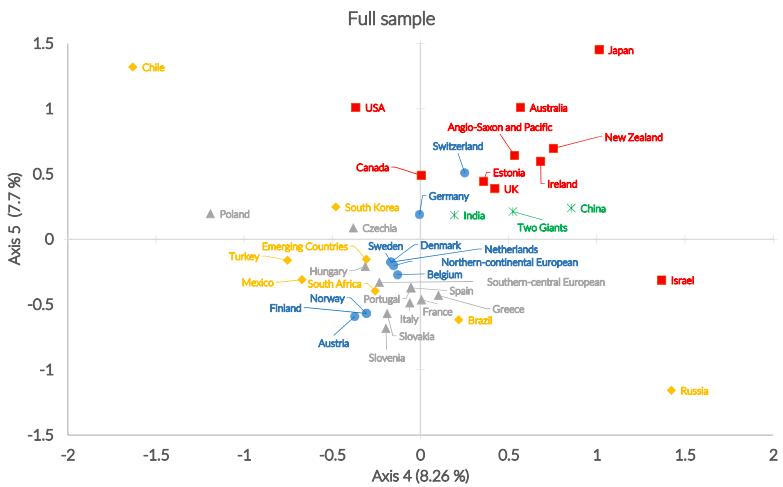


Figure A47: Composition of the clusters identified in the full sample and projection on the factorial plan of the dimensions 4 and 5.

	Full - Modes of regulation	Social relation to the environment	Other institutional forms
Northern-continent European	Maternally offshored, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation***	Financial openness with strong preference for liquidity and strict prudential regulation*** Labour protective, wage-oriented value added distribution, low working time and low income inequality** Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Strongly welfare-oriented and bigger overall size*** Insertion through non-FIRE services and a strong integration into all dimensions of globalization**	Low interest and inflation, weak preference for liquidity and loose prudential regulation Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality** Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises** Partially welfare-oriented and smaller overall size** Insertion through FIRE services and a weak integration into political globalization** & Insertion through services sectors and political globalization**
Anglo-Saxon and Pacific	Ecology-prone political orientation and materially onshored for energy and GHG**	Low interest and inflation, weak preference for liquidity and loose prudential regulation*** Weak profit-oriented value added distribution, high unemployment and low income inequality*** Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises*** Weakly welfare-oriented** Insertion through manufacturing sector and trade globalization** & Insertion through services sectors and political globalization**	Financial closeness with high interest and inflation and strong preference for liquidity** & financial closeness with high interest and inflation, weak preference for liquidity and loose prudential regulation** Labour market flexibility, capital-oriented value added distribution, high working time and high income inequality*** Weak competition and closeness to foreign suppliers but strong competition in the postal sector and strong communication and simplification of rules and procedures*** & Weak competition and closeness to foreign suppliers but strong competition in banking** Economic control- and partially welfare-oriented** & Sovereign-, partially welfare-oriented and smaller overall size* Insertion through a weak integration into all dimensions of globalization***
Southern-central European	Maternally offshored***	Maternally onshored, most unequal distribution of environmental amenities and benefits and ecology-adverse political orientation***	Financial closeness with high interest and inflation, weak preference for liquidity and loose prudential regulation** Oriented towards profit re-investment rather than distribution, high working time and high income inequality* Weak competition, closeness to foreign suppliers, strong government control and strong competition in the telecoms sector** Economic control- and partially welfare-oriented** Insertion through agriculture and secondary sectors and a weak integration into non-political globalizations***
Emerging Countries	Ecology-adverse political orientation***		
Two Giants			

Table A39: The modes of regulation and their institutional forms for the full sample. Significant modalities of the variables at the 10, 5 and confidence 1% levels are indicated respectively by \*, \*\* and \*\*\*. The exact significance of the modalities of each variable is provided in tables A37 and A38.

## 10 OECD

### 10.1 Multiple correspondences analysis

The first two dimensions of MCA express 34.87% of the total dataset inertia. The reference value of the 0.95-quantile of the inertia percentages distribution obtained by simulating 1322 comparable data tables following a uniform distribution is equals 24.4%. The variability explained by this plane is thus significant. It appears that the first 4 axes present an amount of inertia higher than those obtained by the 0.95-quantile of random distributions (54.49% against 43.12%). Thus I kept the first 4 axis.

The first axis opposes countries with a high frequency for the factors *wagelab\_5*, *relevn\_2*, *interreg\_2*, *state\_2* and *monreg\_4* to countries with a high frequency for *interreg\_7*, *relevn\_5*, *wagelab\_1*, *monreg\_1* and *state\_6*. Axis 2 discriminates between countries with a high frequency for *interreg\_7*, *relevn\_5*, *wagelab\_1*, *monreg\_1* and *state\_6* and countries with a high frequency for *state\_4*, *wagelab\_3*, *relevn\_4*, *monreg\_3* and *interreg\_5*. Axis 3 separates countries with a high frequency for *state\_5*, *comp\_1* and *wagelab\_2* and a low frequency for *state\_4* from countries with a high frequency for *state\_4* and *wagelab\_1* and a low frequency for *wagelab\_2*, *comp\_1* and *state\_5*. The fourth axis distinguishes countries whose variables frequency does not differ significantly from the sample mean from countries with a high frequency for *state\_5*, *comp\_1* and *wagelab\_2* and a low frequency for *state\_4*.

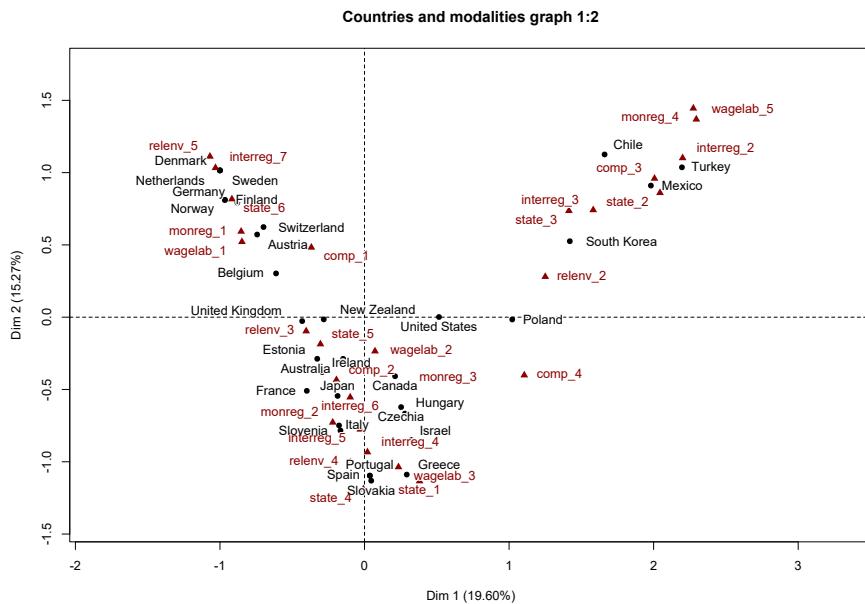


Figure A48: Factorial plans of axes 1 and 2 for the countries and the modalities of each variable for the OECD sample.

[H]

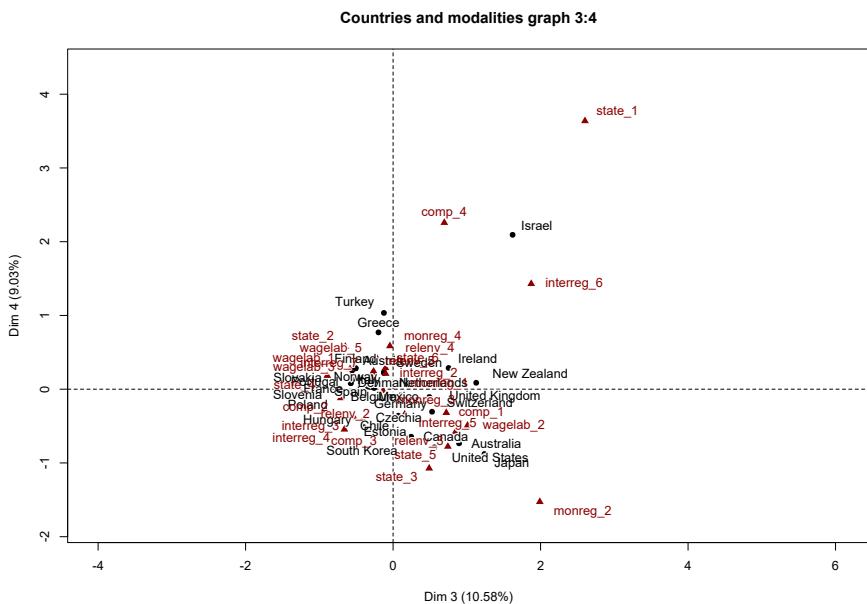


Figure A49: Factorial plans of axes 3 and 4 for the countries and the modalities of each variable for the OECD sample.

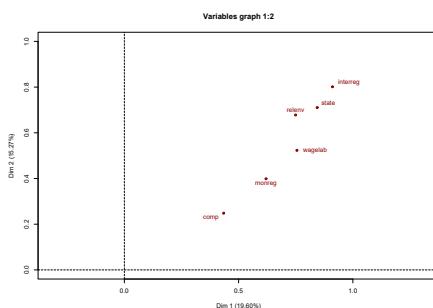


Figure A50: Correlation of the variables to the axes 1 and 2 for the OECD sample.

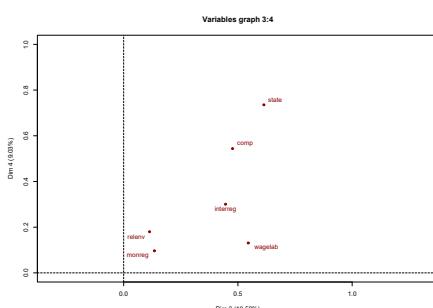


Figure A51: Correlation of the variables to the axes 3 and 4 for the OECD sample.

	Coordinate				Square cosines				Contribution			
	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4
relev_2	1.25	0.28	-0.15	-0.47	0.61	0.03	0.01	0.09	10.19	0.66	0.29	3.14
relev_3	-0.40	-0.10	0.84	-0.58	0.02	0.00	0.10	0.05	0.47	0.04	3.83	2.12
relev_4	-0.10	-1.00	0.01	0.42	0.01	0.53	0.00	0.09	0.08	10.29	0.00	3.07
relev_5	-1.07	1.11	-0.26	0.24	0.38	0.41	0.02	0.02	6.63	9.20	0.75	0.73
monreg_1	-0.85	0.59	0.04	0.08	0.38	0.18	0.00	0.00	5.81	3.60	0.03	0.10
monreg_2	-0.22	-0.73	1.99	-1.53	0.00	0.02	0.13	0.08	0.04	0.49	5.31	3.67
monreg_3	0.28	-0.48	-0.13	-0.03	0.10	0.30	0.02	0.00	1.03	3.90	0.42	0.02
monreg_4	2.28	1.45	-0.04	0.59	0.35	0.14	0.00	0.02	7.50	3.88	0.01	1.08
wagelab_1	-0.85	0.52	-0.58	0.28	0.38	0.14	0.18	0.04	5.73	2.78	5.02	1.32
wagelab_2	0.07	-0.24	1.01	-0.49	0.00	0.03	0.53	0.13	0.04	0.57	15.06	4.18
wagelab_3	0.24	-1.04	-0.58	0.16	0.02	0.30	0.09	0.01	0.28	6.99	3.14	0.29
wagelab_5	2.30	1.37	-0.22	0.41	0.55	0.19	0.01	0.02	11.45	5.23	0.19	0.80
comp_1	-0.37	0.48	0.72	-0.32	0.08	0.14	0.31	0.06	1.18	2.60	8.38	1.92
comp_2	-0.19	-0.43	-0.71	-0.12	0.03	0.17	0.44	0.01	0.41	2.63	10.13	0.33
comp_3	2.01	0.96	-0.05	-0.58	0.27	0.06	0.00	0.02	5.83	1.71	0.01	1.07
comp_4	1.11	-0.40	0.70	2.26	0.13	0.02	0.05	0.53	2.66	0.45	1.94	24.05
state_1	0.38	-1.13	2.60	3.64	0.01	0.04	0.22	0.43	0.11	1.20	9.09	20.81
state_2	2.04	0.86	-0.65	0.58	0.43	0.08	0.04	0.03	9.08	2.07	1.69	1.57
state_3	1.41	0.74	0.49	-1.07	0.21	0.06	0.03	0.12	4.35	1.51	0.96	5.43
state_4	-0.01	-1.19	-0.89	0.18	0.00	0.47	0.27	0.01	0.00	10.53	8.55	0.42
state_5	-0.31	-0.19	0.74	-0.78	0.03	0.01	0.18	0.20	0.54	0.26	5.93	7.60
state_6	-0.92	0.82	-0.10	0.29	0.33	0.26	0.00	0.03	5.49	5.59	0.13	1.18
interreg_2	2.20	1.10	-0.10	0.21	0.50	0.13	0.00	0.01	10.53	3.39	0.04	0.21
interreg_3	1.58	0.74	-0.54	-0.38	0.17	0.04	0.02	0.01	3.63	1.02	0.77	0.44
interreg_4	0.02	-0.93	-0.66	-0.55	0.00	0.16	0.08	0.06	0.00	4.05	2.93	2.33
interreg_5	-0.03	-0.78	0.16	-0.34	0.00	0.27	0.01	0.05	0.01	5.60	0.33	1.82
interreg_6	-0.10	-0.55	1.87	1.43	0.00	0.03	0.36	0.21	0.02	0.86	14.13	9.64
interreg_7	-1.03	1.03	-0.28	0.22	0.42	0.42	0.03	0.02	6.93	8.94	0.95	0.67

Table A40: Detailed results for MCA applied to the OECD sample, for the variables.

	Coordinate				Square cosines				Contribution			
	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4
Australia	-0.15	-0.29	0.90	-0.73	0.01	0.03	0.29	0.20	0.10	0.46	6.45	5.09
Austria	-0.74	-0.55	0.28	-0.25	0.16	0.16	0.03	0.03	2.48	2.48	0.61	0.61
Belgium	-0.61	0.30	-0.26	0.02	0.14	0.04	0.03	0.00	1.63	0.51	0.54	0.00
Canada	0.21	-0.41	0.25	-0.64	0.02	0.09	0.03	0.22	0.19	0.93	0.48	3.92
Chile	1.66	1.13	0.07	-0.36	0.31	0.14	0.00	0.01	11.99	7.07	0.04	1.22
Czechia	0.25	-0.62	-0.40	-0.51	0.02	0.14	0.06	0.10	0.28	2.16	1.28	2.49
Denmark	-1.00	1.02	-0.13	0.23	0.44	0.46	0.01	0.02	4.35	5.75	0.13	0.48
Estonia	-0.33	-0.29	0.34	-0.71	0.03	0.02	0.03	0.15	0.47	0.46	0.93	4.70
Finland	-0.97	0.81	0.28	-0.51	0.43	0.30	0.12	0.04	4.06	3.67	2.07	0.76
France	-0.40	-0.51	-0.53	0.14	0.08	0.13	0.14	0.01	0.69	1.45	2.25	0.20
Germany	-0.88	0.79	0.10	-0.08	0.33	0.27	0.00	0.00	3.36	3.50	0.08	0.07
Greece	0.29	-1.09	-0.20	0.77	0.02	0.34	0.01	0.17	0.37	6.62	0.32	5.60
Hungary	0.28	-0.67	-0.41	-0.43	0.03	0.18	0.07	0.07	0.34	2.48	1.36	1.71
Ireland	-0.29	-0.38	0.75	0.29	0.02	0.04	0.16	0.02	0.37	4.56	0.78	4.56
Israel	0.32	-0.85	1.62	2.09	0.01	0.08	0.29	0.48	0.45	4.02	21.16	41.35
Italy	-0.18	-0.75	-0.58	0.11	0.02	0.11	0.18	0.01	0.14	3.13	2.66	0.12
Japan	-0.19	-0.55	1.24	-0.88	0.01	0.04	0.22	0.11	0.15	1.66	12.37	7.28
Mexico	1.98	0.91	-0.35	0.04	0.50	0.11	0.02	0.00	17.06	4.63	0.01	0.01
Netherlands	-1.00	1.02	-0.13	0.23	0.44	0.46	0.01	0.02	4.35	5.75	0.13	0.48
New Zealand	-0.28	-0.02	1.13	0.09	0.02	0.00	0.32	0.00	0.35	0.00	10.23	0.07
Norway	-0.97	0.81	0.51	0.28	0.43	0.30	0.12	0.04	4.06	3.67	2.07	0.76
Poland	1.02	-0.02	-0.74	-0.07	0.19	0.00	0.10	0.00	4.54	0.00	4.38	0.05
Portugal	0.04	-1.10	-0.57	0.08	0.00	0.57	0.16	0.00	6.70	2.65	0.06	0.06
Slovakia	0.05	-1.13	-0.79	0.02	0.00	0.49	0.24	0.00	0.01	7.14	5.06	0.01
Slovenia	-0.17	-0.78	-0.79	0.06	0.01	0.26	0.27	0.00	0.12	3.43	5.08	0.03
South Korea	1.42	0.53	0.28	-0.71	0.31	0.04	0.01	0.08	8.77	1.54	0.65	4.68
Spain	0.04	-1.10	-0.57	0.08	0.00	0.57	0.16	0.00	0.01	6.70	2.65	0.06
Sweden	-1.00	1.02	-0.13	0.23	0.44	0.46	0.01	0.02	4.35	5.75	0.13	0.48
Switzerland	-0.70	0.62	0.53	-0.31	0.21	0.17	0.12	0.04	2.12	2.17	2.25	0.88
Turkey	2.20	1.04	-0.12	1.03	0.52	0.12	0.00	0.11	20.96	6.00	0.13	10.09
United Kingdom	-0.43	-0.03	0.49	-0.11	0.09	0.00	0.12	0.01	0.81	0.00	1.95	0.11
United States	0.52	0.00	0.56	-0.79	0.09	0.00	0.10	0.20	1.15	0.00	2.53	5.86

Table A41: Detailed results for the MCA applied to the OECD sample, for the countries.

## 10.2 Clustering

As indicated by figures A52 and A53, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying a such a clustering and the inter-inertia gains are still substantial. Table A42 indicates which variables characterize the most each cluster. Figures A54 and A55 show the composition of the clusters and their position on the factorial plans built from the selected axes. Finally, table A43 sums up the characteristics of each mode of regulation identified in the OECD sample.

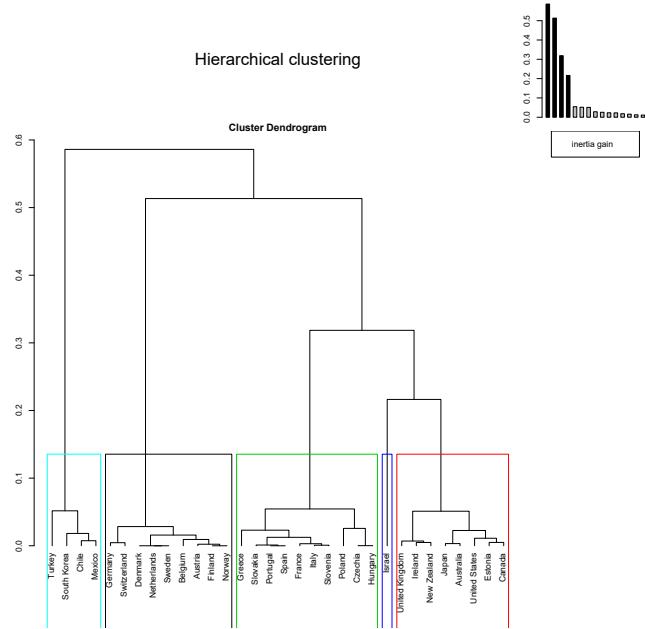


Figure A52: Hierarchical tree for the clustering of modes of regulation upon the OECD sample

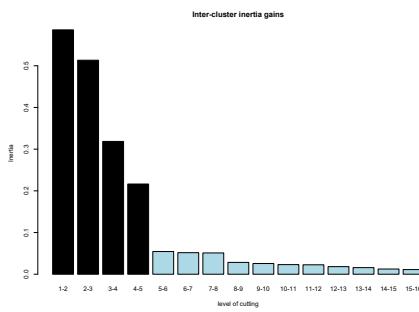


Figure A53: Inter-clusters inertia gains to partition the OECD sample in five clusters.

	Cla/Mod	Mod/Cla	1	Global	P.value	v.test	Cla/Mod	Mod/Cla	2	Global	P.value	v.test	Cla/Mod	Mod/Cla	3	Global	P.value	v.test
comp_1	41,67	55,56	37,50	0,22	1,22	50,00	75,00	37,50	0,02	2,33	0,00	-1,33	53,33	88,89	37,50	0,01	-2,75	
comp_2	26,67	44,44	46,88	0,88	-0,16	13,33	25,00	46,88	0,18	-0,88	46,88	0,00	-0,59	0,00	46,88	0,00	2,86	
comp_3	0,00	6,25	0,51	-0,66	0,00	0,00	6,25	0,56	6,25	0,00	0,00	6,25	0,51	0,51	0,00	-0,66		
comp_4	0,00	0,00	9,38	0,36	-0,92	0,00	0,00	9,38	0,41	-0,83	0,00	0,00	9,38	0,83	0,22	0,00	-0,66	
interreg_2	0,00	0,00	9,38	0,36	-0,92	0,00	0,00	9,38	0,41	-0,83	0,00	0,00	9,38	0,83	0,22	0,00	-0,92	
interreg_3	0,00	0,00	6,25	0,51	-0,66	0,00	0,00	6,25	0,56	-0,59	0,00	0,00	6,25	0,51	0,51	0,00	-0,66	
interreg_4	0,00	0,00	15,63	0,17	-1,38	20,00	12,50	15,63	0,84	-0,20	80,00	44,44	15,63	0,02	2,42	0,00	-0,66	
interreg_5	0,00	0,00	31,25	0,02	-2,37	50,00	62,50	31,25	0,05	1,99	50,00	55,56	31,25	0,09	1,69	0,00	-0,92	
interreg_6	0,00	0,00	9,38	0,36	-0,92	66,67	25,00	9,38	0,16	0,00	0,00	9,38	0,36	0,36	0,00	1,69	0,00	-0,92
interreg_7	100,00	100,00	28,13	0,00	5,51	0,00	0,00	28,13	0,05	-1,99	0,00	0,00	28,13	0,03	2,18	0,00	-2,18	
monreg_1	63,64	77,78	34,38	0,00	3,00	27,27	37,50	34,38	0,83	0,21	9,09	11,11	34,38	0,10	-1,64	0,00	-1,64	
monreg_2	0,00	0,00	3,13	0,72	-0,36	100,00	12,50	31,13	0,25	1,15	0,00	0,00	3,13	0,72	0,72	0,00	-0,36	
monreg_3	11,11	22,22	56,25	0,02	-2,28	22,22	50,00	56,25	0,70	-0,38	44,44	88,89	56,25	0,03	2,24	0,00	-0,92	
monreg_4	0,00	0,00	6,25	0,51	-0,66	0,00	0,00	6,25	0,56	-0,59	0,00	0,00	6,25	0,51	0,51	0,00	-0,66	
relevy_2	0,00	0,00	28,13	0,03	-2,18	22,22	25,00	28,13	0,86	-0,18	22,22	22,22	28,13	0,69	0,69	0,00	-0,40	
relevy_3	25,00	11,11	12,50	0,94	-0,08	75,00	37,50	12,50	0,04	2,04	0,00	12,50	0,25	0,25	0,09	1,69	0,00	-0,40
relevy_4	0,00	0,00	34,38	0,01	-2,56	27,27	37,50	34,38	0,83	0,21	63,64	77,78	34,38	0,00	3,00	0,00	-0,16	
relevy_5	100,00	100,00	88,89	0,00	4,92	0,00	0,00	25,00	0,07	-1,81	0,00	0,00	25,00	0,05	0,05	0,00	-1,99	
state_1	0,00	0,00	3,13	0,72	-0,36	0,00	0,00	3,13	0,75	-0,32	0,00	0,00	3,13	0,72	0,72	0,00	-0,36	
state_2	0,00	0,00	9,38	0,36	-0,92	0,00	0,00	9,38	0,41	-0,83	0,00	0,00	9,38	0,36	0,36	0,00	-0,92	
state_3	0,00	0,00	9,38	0,36	-0,92	33,33	12,50	9,38	0,74	0,33	0,00	0,00	9,38	0,36	0,36	0,00	-0,92	
state_4	0,00	0,00	25,00	0,05	-1,99	0,00	0,00	25,00	0,07	-1,81	100,00	88,89	25,00	0,00	4,92	0,00	-0,92	
state_5	25,00	22,22	25,00	0,05	-1,99	62,50	62,50	25,00	0,01	2,04	12,50	0,00	25,00	0,00	4,92	0,00	-0,92	
state_6	77,78	77,78	28,13	0,00	3,58	22,22	25,00	28,13	0,86	-0,18	0,00	0,00	28,13	0,03	2,18	0,00	-2,18	
wagelab_1	72,73	88,89	34,38	0,00	3,83	0,00	0,00	25,00	0,02	-2,34	27,27	33,33	34,38	0,96	-0,06	0,00	-0,06	
wagelab_2	9,09	11,11	34,38	0,10	-1,64	63,64	87,50	34,38	0,00	3,39	9,09	11,11	34,38	0,10	-1,64	0,00	-1,64	
wagelab_3	0,00	0,00	21,88	0,07	-1,79	14,29	12,50	21,88	0,53	-0,64	71,43	55,56	21,88	0,01	2,55	0,00	-1,64	
wagelab_5	0,00	0,00	9,38	0,36	-0,92	0,00	0,00	9,38	0,41	-0,83	0,00	0,00	9,38	0,36	0,36	0,00	-0,92	
			4					5										
comp_1	0,00	0,00	37,50	0,63	-0,49	8,33	20,00	37,50	0,44	-0,77	0,00	0,00	37,50	0,44	0,44	0,00	-0,77	
comp_2	0,00	0,00	46,88	0,53	-0,63	6,67	20,00	46,88	0,24	-1,18	0,00	0,00	46,88	0,24	0,24	0,00	-1,18	
comp_3	0,00	0,00	6,25	0,94	-0,08	100,00	40,00	6,25	0,02	2,32	0,00	0,00	6,25	0,02	0,02	0,00	-2,32	
comp_4	33,33	100,00	9,38	0,09	1,68	33,33	20,00	9,38	0,47	0,73	0,00	0,00	9,38	0,47	0,47	0,00	-0,92	
interreg_2	0,00	0,00	9,38	0,91	-0,12	100,00	60,00	9,38	0,00	3,09	0,00	0,00	9,38	0,00	3,09	0,00	-0,92	
interreg_3	0,00	0,00	6,25	0,94	-0,08	100,00	40,00	6,25	0,02	2,32	0,00	0,00	6,25	0,02	0,02	0,00	-2,32	
interreg_4	0,00	0,00	15,63	0,84	-0,20	0,00	0,00	15,63	0,40	-0,84	0,00	0,00	15,63	0,40	0,40	0,00	-0,84	
interreg_5	0,00	0,00	31,13	0,69	-0,40	0,00	0,00	31,13	0,13	0,59	0,00	0,00	31,13	0,13	0,13	0,00	-0,59	
interreg_6	33,33	100,00	9,38	0,09	1,68	0,00	0,00	9,38	0,59	-0,54	0,00	0,00	9,38	0,59	0,59	0,00	-0,54	
interreg_7	0,00	0,00	28,13	0,72	-0,36	0,00	0,00	28,13	0,17	0,17	0,00	0,00	28,13	0,17	0,17	0,00	-1,38	
monreg_1	0,00	0,00	34,38	0,66	-0,45	0,00	0,00	34,38	0,10	0,10	0,00	0,00	34,38	0,10	0,10	0,00	-1,64	
monreg_2	0,00	0,00	3,13	0,97	-0,04	0,00	0,00	3,13	0,00	0,00	0,00	0,00	3,13	0,84	0,84	0,00	-0,20	
monreg_3	5,56	100,00	56,25	0,56	-0,58	16,67	60,00	56,25	0,88	0,88	0,00	0,00	56,25	0,88	0,88	0,00	-0,84	
monreg_4	0,00	0,00	6,25	0,94	-0,08	100,00	40,00	6,25	0,02	2,32	0,00	0,00	6,25	0,02	0,02	0,00	-2,32	
relevy_2	0,00	0,00	28,13	0,72	-0,36	0,00	0,00	28,13	0,00	0,00	0,00	0,00	28,13	0,00	0,00	0,00	-1,38	
relevy_3	0,00	0,00	12,50	0,88	-0,32	0,00	0,00	12,50	0,21	0,21	0,00	0,00	12,50	0,21	0,21	0,00	-1,25	
relevy_4	9,09	100,00	34,38	0,34	0,95	0,00	0,00	34,38	0,10	0,10	0,00	0,00	34,38	0,10	0,10	0,00	-1,25	
relevy_5	0,00	0,00	25,00	0,75	-0,32	0,00	0,00	25,00	0,00	0,00	0,00	0,00	25,00	0,00	0,00	0,00	-1,25	
state_1	100,00	100,00	3,13	0,03	2,15	0,00	0,00	3,13	0,00	0,00	0,00	0,00	3,13	0,84	0,84	0,00	-0,20	
state_2	0,00	0,00	9,38	0,91	-0,12	100,00	60,00	60,00	0,00	0,00	0,00	0,00	60,00	0,00	0,00	0,00	-0,20	
state_3	0,00	0,00	9,38	0,91	-0,12	66,67	40,00	9,38	0,06	1,89	0,00	0,00	9,38	0,06	1,89	0,00	-0,20	
state_4	0,00	0,00	12,50	0,75	-0,32	0,00	0,00	12,50	0,49	-0,69	0,00	0,00	12,50	0,49	0,49	0,00	-0,69	
state_5	0,00	0,00	28,13	0,72	-0,36	0,00	0,00	28,13	0,17	0,17	0,00	0,00	28,13	0,17	0,17	0,00	-1,38	
state_6	0,00	0,00	34,38	0,66	-0,45	0,00	0,00	34,38	0,10	0,10	0,00	0,00	34,38	0,10	0,10	0,00	-1,64	
wagelab_1	0,00	0,00	34,38	0,34	0,95	0,00	0,00	9,09	0,00	0,00	0,00	0,00	34,38	0,53	0,53	0,00	-0,63	
wagelab_2	9,09	100,00	21,88	0,78	-0,28	14,29	20,00	21,88	0,00	0,00	21,88	0,00	21,88	0,00	0,00	21,88	0,00	
wagelab_3	0,00	0,00	9,38	0,91	-0,12	100,00	60,00	9,38	0,00	0,00	0,00	0,00	9,38	0,00	0,00	0,00	-0,92	
wagelab_5	0,00	0,00	9,38	0,91	-0,12	100,00	60,00	9,38	0,00	0,00	0,00	0,00	9,38	0,00	0,00	0,00	-0,92	

Table A42: Detailed results for the clustering on the OECD sample, for the variables. See table A37 for the interpretation of the data.

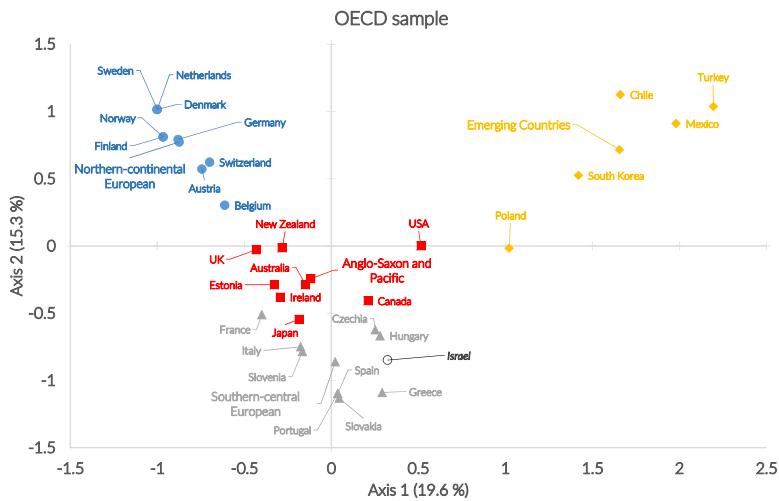


Figure A54: Composition of the clusters identified in the OECD sample and projection on the factorial plan of the dimensions 1 and 2. Countries with an empty circle are on their own.

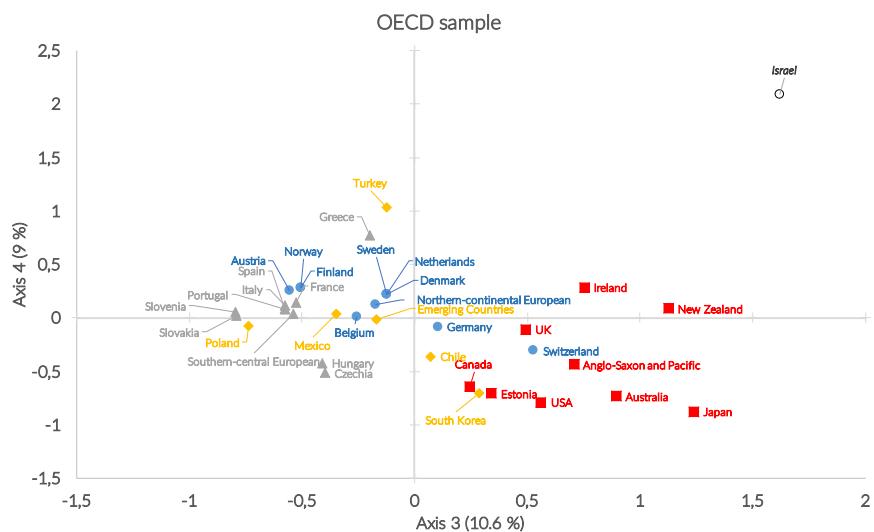


Figure A55: Composition of the clusters identified in the OECD sample and projection on the factorial plan of the dimensions 3 and 4. Countries with an empty circle are on their own.

OECD - Modes of regulation	Social relation to the environment	Other institutional forms
Northern-continent European	Materially offshored, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation***	Financial openness with strong preference for liquidity and strict prudential regulation*** Labour protective, wage-oriented value added distribution, low working time and low income inequality** Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Strongly welfare-oriented and bigger overall size*** Insertion through non-FIRE services and a strong integration into all dimensions of globalization**
Anglo-Saxon and Pacific	Ecology-prone political orientation and materially onshored for energy and GHG**	Low interest and inflation, weak preference for liquidity and loose prudential regulation Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality** Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises** Partially welfare-oriented and smaller overall size** Insertion through services sectors and political globalization**
Southern-central European	Materially offshored***	Low interest and inflation, weak preference for liquidity and loose prudential regulation** Profit-oriented value added distribution, high unemployment and low income inequality** Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises** Weakly welfare-oriented** Insertion through manufacturing sector and trade globalization** & Insertion through services sectors and political globalization**
Israel	Materially offshored	Low interest and inflation, weak preference for liquidity and loose prudential regulation Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality** Weak competition and closeness to foreign suppliers but strong competition in banking* Sovereign- and Economic control-oriented** Insertion through FIRE services and a weak integration into political globalization*
Emerging Countries	Ecology-adverse political orientation***	Financial closeness with high interest and inflation, weak preference for liquidity and loose prudential regulation** Labour market flexibility, capital-oriented value added distribution, high working time and high income inequality*** Weak competition and closeness to foreign suppliers but strong competition in the postal sector and strong communication and simplification of rules and procedures** Economic control- and partially welfare-oriented** & Sovereign-, partially welfare-oriented and smaller overall size** Insertion through a weak integration into all dimensions of globalization** & Insertion through extractive and energy sector**

Table A43: The modes of regulation and their institutional forms for the full sample. Significant modalities of the variables at the 10, 5 and confidence 1% levels are indicated respectively by \*, \*\* and \*\*\*. The exact significance of the modalities of each variable is provided in table A42.

## 11 European union

### 11.1 Multiple correspondences analysis

The first two dimensions of MCA express 43.8% of the total dataset inertia while the reference value of the 0.95-quantile of the inertia percentages distribution obtained by simulating 1265 similar data tables following a uniform distribution is 35.59%. The variability explained by this plane is therefore significant. It appears that the first four axes carry a significant information as they synthesize 70.17% of the total inertia, which is higher than those obtained by the 0.95-quantile of random distributions (59.87%).

Axis 1 opposes countries exhibiting a high frequency for *state\_4*, *relenv\_4*, *monreg\_3* and *interreg\_5* and a low frequency for the factors *relenv\_5*, *monreg\_1* and *interreg\_7* to countries with a high frequency for *interreg\_7*, *monreg\_1*, *relenv\_5*, *state\_6*, *comp\_1* and *wagelab\_1* and a low frequency for the factors *monreg\_3*, *relenv\_4*, *wagelab\_3*, *comp\_2* and *state\_4*. Axis 2 opposes countries whose variables frequency does not differ significantly from the mean to countries sharing a high frequency for *state\_4*, *relenv\_4*, *monreg\_3* and *interreg\_5* and a low frequency for *relenv\_5*, *monreg\_1* and *interreg\_7*. Axis 3 separates countries with a high frequency for *interreg\_6*, *state\_5* and *wagelab\_2* and a low frequency for *interreg\_3*, *state\_2* and *comp\_4* to countries with a low frequency for the former variables and a high frequency for the latter ones. Axis 4 distinguishes between countries sharing low frequencies for *comp\_1* to countries exhibiting high values for *interreg\_6*.

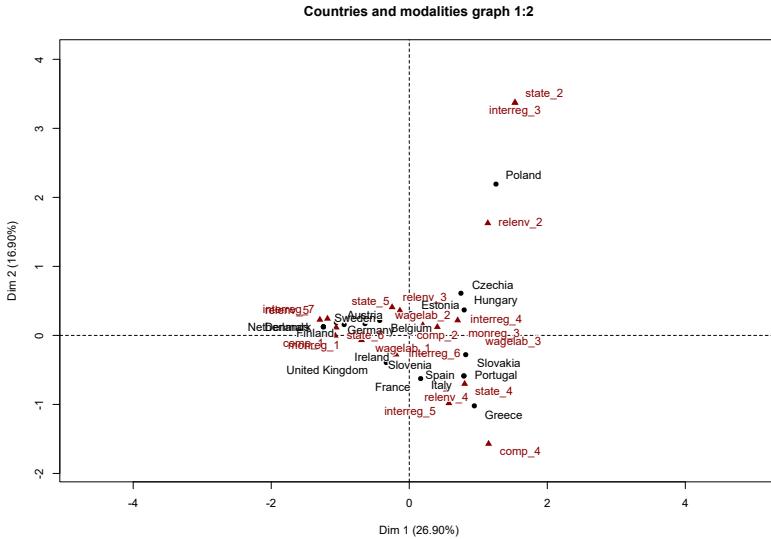


Figure A56: Factorial plans of axes 1 and 2 for the countries and the modalities of each variable for the European union sample.

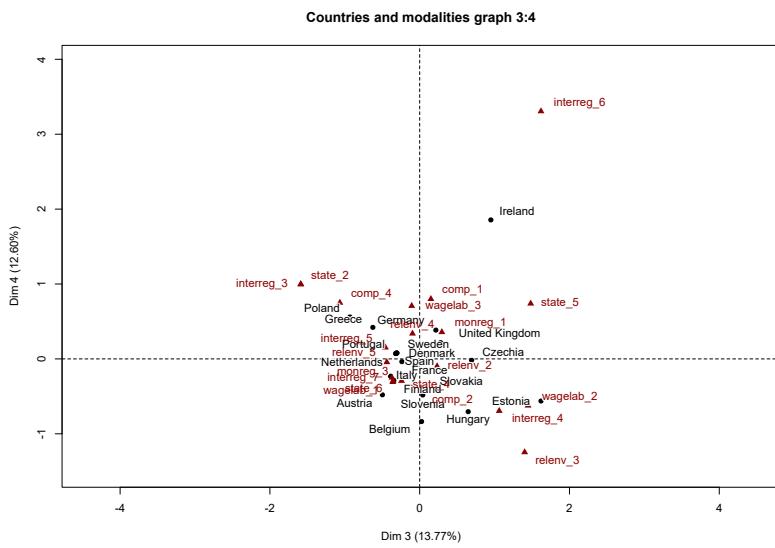


Figure A57: Factorial plans of axes 3 and 4 for the countries and the modalities of each variable for the European union sample.

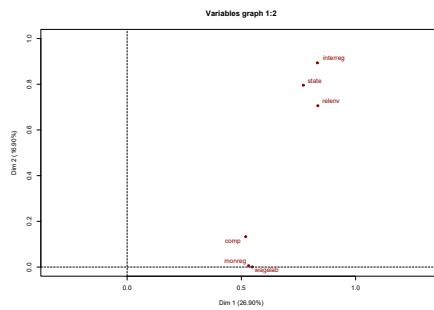


Figure A58: Correlation of the variables to the axes 1 and 2 for the European union sample.

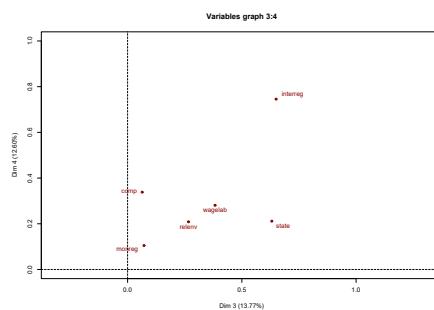


Figure A59: Correlation of the variables to the axes 1 and 2 for the European union sample.

	Coordinate				Square cosines				Contribution			
	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4
relevn_2	1.14	1.63	0.23	-0.10	0.23	0.47	0.01	0.00	4.82	15.65	0.39	0.08
relevn_3	-0.25	0.41	1.40	-1.25	0.01	0.02	0.22	0.17	0.15	0.66	9.51	8.21
relevn_4	0.54	-0.79	-0.10	0.34	0.24	0.50	0.01	0.09	3.24	10.93	0.20	2.72
relevn_5	-1.30	0.23	-0.44	-0.04	0.72	0.02	0.08	0.00	12.47	0.61	2.80	0.03
monreg_1	-0.82	-0.03	0.30	0.36	0.55	0.00	0.07	0.11	7.46	0.01	1.91	3.05
monreg_3	0.67	0.02	-0.24	-0.29	0.55	0.00	0.07	0.11	6.10	0.01	1.56	2.50
wagelab_1	-0.69	-0.07	-0.36	-0.31	0.48	0.01	0.13	0.10	5.93	0.09	3.13	2.52
wagelab_2	0.20	0.15	1.45	-0.62	0.01	0.00	0.37	0.07	0.14	0.13	15.20	3.08
wagelab_3	0.90	0.03	-0.11	0.71	0.44	0.00	0.01	0.27	7.09	0.02	0.19	9.27
comp_1	-1.07	0.00	0.15	0.80	0.49	0.00	0.01	0.27	8.56	0.00	0.33	10.15
comp_2	0.41	0.12	0.01	-0.43	0.31	0.03	0.00	0.34	2.66	0.38	0.01	6.27
comp_4	1.15	-1.57	-1.07	0.75	0.07	0.13	0.06	0.03	1.64	4.86	2.75	1.49
state_2	1.53	3.37	-1.59	1.00	0.12	0.60	0.13	0.05	2.91	22.43	6.10	2.63
state_4	0.80	-0.70	-0.23	-0.24	0.43	0.33	0.04	0.04	6.38	7.77	1.05	1.20
state_5	-0.14	0.36	1.48	0.74	0.01	0.03	0.55	0.14	0.09	1.02	21.28	5.78
state_6	-1.06	0.12	-0.36	-0.29	0.60	0.01	0.07	0.05	9.72	0.18	2.13	1.58
interreg_3	1.53	3.37	-1.59	1.00	0.12	0.60	0.13	0.05	2.91	22.43	6.10	2.63
interreg_4	0.70	0.22	1.06	-0.69	0.16	0.02	0.38	0.16	3.05	0.47	13.64	6.37
interreg_5	0.57	-0.98	-0.46	0.15	0.14	0.41	0.09	0.01	2.45	11.39	3.05	0.37
interreg_6	-0.19	-0.28	1.62	3.31	0.00	0.00	0.14	0.58	0.05	0.15	6.35	28.92
interreg_7	-1.19	0.24	-0.37	-0.25	0.76	0.03	0.07	0.03	12.17	0.81	2.32	1.16

Table A44: Detailed results of the MCA applied to the European union sample for the variables.

	Coordinate				Square cosines				Contribution			
	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4
Austria	-0.64	0.17	-0.50	-0.48	0.29	0.02	0.18	0.16	3.06	0.34	3.60	3.64
Belgium	-0.43	0.22	0.03	-0.84	0.07	0.02	0.00	0.28	1.37	0.55	0.01	11.10
Czechia	0.75	0.61	0.69	-0.02	0.21	0.14	0.18	0.00	4.17	4.42	6.98	0.01
Denmark	-1.24	0.12	-0.31	0.08	0.88	0.01	0.05	0.00	11.50	0.18	1.36	0.10
Estonia	0.02	0.32	1.62	-0.56	0.00	0.03	0.67	0.08	0.00	1.18	38.10	5.02
Finland	-0.94	0.16	-0.35	-0.29	0.61	0.02	0.08	0.06	6.62	0.29	1.73	1.30
France	0.17	-0.63	-0.24	-0.04	0.02	0.30	0.04	0.00	0.20	4.64	0.82	0.02
Germany	-1.06	0.19	0.22	0.39	0.53	0.02	0.02	0.07	8.30	0.41	0.68	2.35
Greece	0.94	-1.02	-0.63	0.42	0.20	0.23	0.09	0.04	6.61	12.33	5.68	2.81
Hungary	0.80	0.37	0.65	-0.71	0.22	0.05	0.15	0.17	4.71	1.61	6.09	7.88
Ireland	-0.16	-0.18	0.95	1.86	0.01	0.01	0.18	0.70	0.18	0.38	13.11	54.66
Italy	0.47	-0.61	-0.39	-0.23	0.18	0.30	0.12	0.04	1.62	4.44	2.22	0.84
Netherlands	-1.24	0.12	-0.31	0.08	0.88	0.01	0.05	0.00	11.50	0.18	1.36	0.10
Poland	1.26	2.19	-0.93	0.56	0.20	0.62	0.11	0.04	11.74	56.86	12.60	4.97
Portugal	0.79	-0.59	-0.32	0.07	0.46	0.25	0.07	0.00	4.66	4.08	1.48	0.08
Slovakia	0.82	-0.28	0.11	-0.18	0.45	0.05	0.01	0.02	4.97	0.92	0.19	0.51
Slovenia	0.49	-0.31	0.04	-0.48	0.18	0.07	0.00	0.17	1.81	1.10	0.02	3.68
Spain	0.79	-0.59	-0.32	0.07	0.46	0.25	0.07	0.00	4.66	4.08	1.48	0.08
Sweden	-1.24	0.12	-0.31	0.08	0.88	0.01	0.05	0.00	11.50	0.18	1.36	0.10
United Kingdom	-0.33	-0.39	0.28	0.22	0.05	0.06	0.03	0.02	0.83	1.83	1.13	0.75

Table A45: Detailed results for the McA applied to the Euro. union sample for the countries.

## 11.2 Clustering

As indicated by figures A60 and A61, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying a such a clustering and the inter-inertia gains are still substantial. Table A46 indicates which variables characterize the most each cluster. Figures A62 and A63 show the composition of the clusters and their position on the factorial plans built from the selected axes. Finally, table A47 sums up the characteristics of each mode of regulation identified in the European union sample.

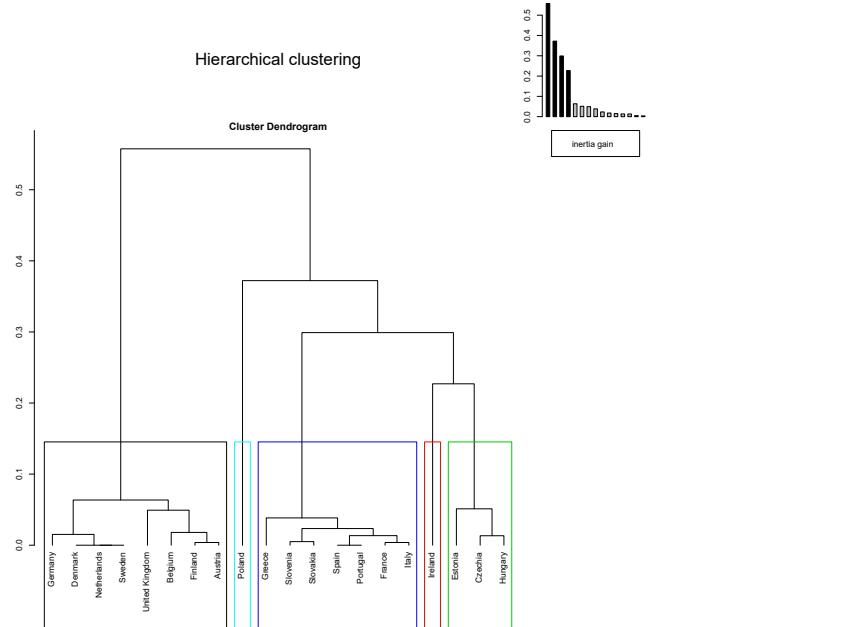


Figure A60: Hierarchical tree for the clustering of modes of regulation upon the European union sample

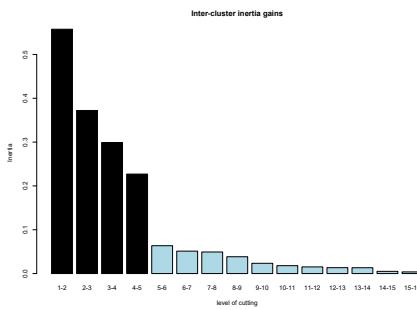


Figure A61: Inter-cluster inertia gains to partition the EU sample into five classes.

	Cla/Mod	Mod/Cla	1	Global	P.value	v.test	Cla/Mod	Mod/Cla	2	Global	P.value	v.test	Cla/Mod	Mod/Cla	3	Global	P.value	v.test
comp_1	83.33	62.50	30.00	0.02	2.35	16.67	100.00	30.00	0.30	1.04	0.00	0.00	30.00	0.32	-1.00			
comp_2	23.08	37.50	65.00	0.06	-0.52	0.00	0.00	65.00	0.35	-0.94	23.08	100.00	65.00	0.25	1.15			
comp_4	0.00	0.00	5.00	0.60	-0.52	0.00	0.00	5.00	0.95	-0.06	0.00	0.00	5.00	0.85	-0.19			
interreg_3	0.00	0.00	5.00	0.60	-0.52	0.00	0.00	5.00	0.95	-0.06	0.00	0.00	5.00	0.85	-0.19			
interreg_4	0.00	0.00	25.00	0.05	-1.95	0.00	0.00	25.00	0.75	-0.32	60.00	100.00	25.00	0.01	2.62			
interreg_5	16.67	12.50	30.00	0.21	-1.25	0.00	0.00	30.00	0.70	-0.39	0.00	0.00	30.00	0.32	-1.00			
interreg_6	0.00	0.00	5.00	0.60	-0.52	0.00	0.00	5.00	0.65	1.96	0.00	0.00	5.00	0.85	-0.19			
interreg_7	100.00	87.50	35.00	0.00	3.88	0.00	0.00	35.00	0.65	-0.45	0.00	0.00	35.00	0.25	-1.15			
monreg_1	66.67	75.00	45.00	0.04	2.02	11.11	100.00	45.00	0.45	0.76	11.11	33.33	45.00	0.72	-0.35			
monreg_3	18.18	25.00	55.00	0.04	-2.02	0.00	0.00	55.00	0.45	-0.76	18.18	66.67	55.00	0.72	0.35			
relev_2	0.00	0.00	15.00	0.19	-1.30	0.00	0.00	15.00	0.85	-0.19	66.67	66.67	15.00	0.05	1.99			
relev_3	50.00	12.50	10.00	0.80	0.25	0.00	0.00	10.00	0.90	-0.13	50.00	50.00	33.33	0.30	1.04			
relev_4	11.11	12.50	45.00	0.03	-2.22	11.11	100.00	45.00	0.45	0.76	0.00	0.00	45.00	0.15	-1.46			
relev_5	100.00	75.00	30.00	0.00	3.38	0.00	0.00	30.00	0.70	-0.39	0.00	0.00	30.00	0.32	-1.00			
state_2	0.00	0.00	5.00	0.60	-0.52	0.00	0.00	5.00	0.95	-0.06	0.00	0.00	5.00	0.85	-0.19			
state_4	0.00	0.00	40.00	0.00	-2.88	0.00	0.00	40.00	0.60	-0.52	0.00	0.00	40.00	0.85	-0.19			
state_5	25.00	12.50	20.00	0.57	-0.57	25.00	100.00	20.00	0.20	1.28	50.00	66.67	20.00	0.09	1.69			
state_6	100.00	87.50	35.00	0.00	3.88	0.00	0.00	35.00	0.65	-0.45	0.00	0.00	35.00	0.25	-1.15			
wagelab_1	70.00	87.50	50.00	0.01	2.57	0.00	0.00	50.00	0.50	-0.67	0.00	0.00	50.00	0.11	-1.62			
wagelab_2	33.33	12.50	15.00	0.85	-0.19	0.00	0.00	15.00	0.85	-0.19	66.67	66.67	15.00	0.05	1.99			
wagelab_3	0.00	0.00	35.00	0.01	-2.57	14.29	100.00	35.00	0.35	0.94	14.29	33.33	35.00	0.98	-0.02			
			4						5									
comp_1	0.00	0.00	30.00	0.04	-2.01	0.00	0.00	30.00	0.70	-0.39								
comp_2	46.15	85.71	65.00	0.20	1.28	7.69	100.00	65.00	0.65	0.45								
comp_4	100.00	14.29	5.00	0.35	0.94	0.00	0.00	5.00	0.95	-0.06								
interreg_3	0.00	0.00	5.00	0.65	-0.45	100.00	100.00	5.00	0.05	1.96								
interreg_4	40.00	28.57	25.00	0.80	0.25	0.00	0.00	25.00	0.75	-0.32								
interreg_5	83.33	71.43	30.00	0.01	2.68	0.00	0.00	30.00	0.70	-0.39								
interreg_6	0.00	0.00	5.00	0.65	-0.45	0.00	0.00	5.00	0.95	-0.06								
interreg_7	0.00	14.29	45.00	0.02	-2.29	0.00	0.00	45.00	0.55	-0.45								
monreg_1	11.11	54.55	85.71	0.06	-1.87	0.00	0.00	55.00	0.55	-0.60								
monreg_3	0.00	0.00	15.00	0.25	-1.15	9.09	100.00	55.00	0.05	1.96								
relev_2	0.00	0.00	10.00	0.41	-0.82	0.00	0.00	100.00	15.00	0.15								
relev_3	0.00	0.00	45.00	0.00	3.50	0.00	0.00	45.00	0.55	-0.13								
relev_4	77.78	100.00	30.00	0.04	-2.01	0.00	0.00	30.00	0.70	-0.39								
relev_5	0.00	0.00	5.00	0.65	-0.45	100.00	100.00	5.00	0.05	1.96								
state_2	0.00	0.00	40.00	0.00	3.88	0.00	0.00	40.00	0.60	-0.52								
state_4	87.50	100.00	20.00	0.15	-1.45	0.00	0.00	20.00	0.80	-0.25								
state_5	0.00	0.00	35.00	0.02	-2.29	0.00	0.00	35.00	0.65	-0.45								
state_6	0.00	0.00	50.00	0.68	-0.42	0.00	0.00	50.00	0.50	-0.67								
wagelab_1	30.00	42.86	50.00	1.50	-0.25	-1.15	0.00	15.00	0.85	-0.19								
wagelab_2	0.00	0.00	35.00	0.01	1.36	14.29	100.00	35.00	0.35	0.94								
wagelab_3	57.14	57.14																

Table A46: Detailed results for the clustering on the European union sample. See table A37 for the interpretation of the data.

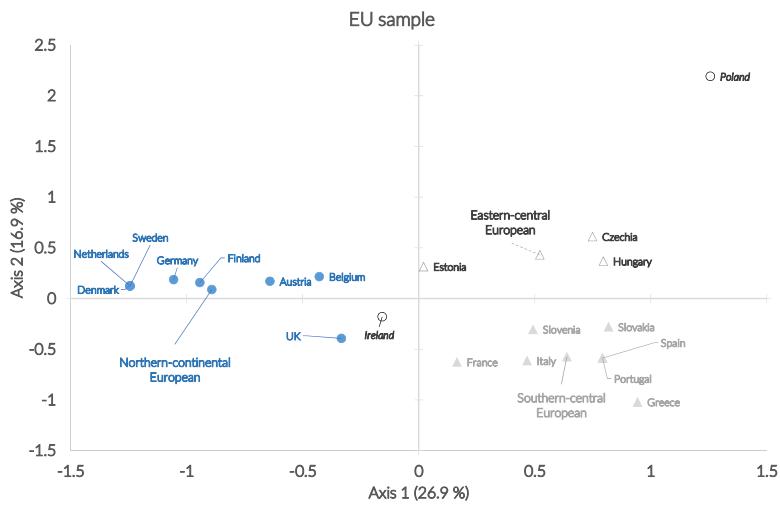


Figure A62: Composition of the clusters identified in the European union sample and projection on the factorial plan of the dimensions 1 and 2. Countries with an empty circle are on their own.

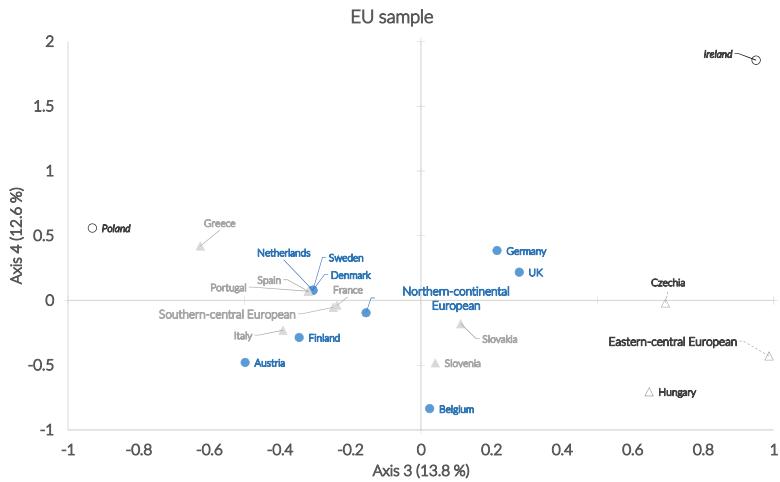


Figure A63: Composition of the clusters identified in the European union sample and projection on the factorial plan of the dimensions 3 and 4. Countries with an empty circle are on their own.

EU - Modes of regulation	Social relation to the environment	Other institutional forms
Northern-continent European	Materially offshored, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation***	Financial openness with strong preference for liquidity and strict prudential regulation** Labour protective, wage-oriented value added distribution, low working time and low income inequality** Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises** Strongly welfare-oriented and bigger overall size** Insertion through non-FIRE services and a strong integration into all dimensions of globalization**
Ireland	Materially offshored	Financial openness with strong preference for liquidity and strict prudential regulation Profit-oriented value added distribution, high unemployment and low income inequality Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Partially welfare-oriented and smaller overall size Insertion through FIRE services and a weak integration into political globalization**
Eastern-central European	Ecology-adverse political orientation**	Low interest and inflation, weak preference for liquidity and loose prudential regulation Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality** Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises Partially welfare-oriented and smaller overall size*
Southern-central European	Materially offshored***	Low interest and inflation, weak preference for liquidity and loose prudential regulation* Profit-oriented value added distribution, high unemployment and low income inequality Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises*** Weakly welfare-oriented*** Insertion through services sectors and political globalization***
Poland	Ecology-adverse political orientation	Low interest and inflation, weak preference for liquidity and loose prudential regulation Profit-oriented value added distribution, high unemployment and low income inequality Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises Economic control- and partially welfare-oriented** Insertion through extractive and energy sector***

Table A47: The modes of regulation and their institutional forms for the full sample. Significant modalities of the variables at the 10, 5 and confidence 1% levels are indicated respectively by \* , \*\* and \*\*\*. The exact significance of the modalities of each variable is provided in table A46.

## 12 Non-European union

### 12.1 Multiple correspondences analysis

To perform the multiple correspondences analysis without bias in the results, Norway was removed from the sample since it was detected as an outlier.

The first two dimensions of MCA express 35.12% of the total inertia contained in the dataset, which is higher than the reference value 31.69%, the variability explained by this plane is thus significant at the 5% level. (the reference value is obtained by simulating 1284 comparable data tables following a uniform distribution). Only the first two axes carry a significant information (35.12% while the 0-95 quantile reference value is 31.69%). However, I also kept axes 3 and 4 in the analysis in order to keep more than 50% of the information contained in the initial dataset. The four axes allow to keep 58% of the inertia.

Axis 1 separates countries with a high frequency of *comp\_5*, *interreg\_1*, *relevn\_1*, *monreg\_4* and *state\_2* and a low frequency of *comp\_1* from the rest of the sample. Axis 2 two opposes countries sharing a high frequency of *interreg\_7*, *monreg\_1*, *relevn\_5*, *comp\_5* and *interreg\_1* to the rest of the sample. Axis 3 differentiates countries with a high frequency for *interreg\_7*, *monreg\_1*, *relevn\_5*, *interreg\_2* and *comp\_3* to countries exhibiting high frequencies of *comp\_5*, *interreg\_1*, *relevn\_2*, *interreg\_6*, *relevn\_3* and low frequencies for *relevn\_2*. Finally, the fourth axis opposes countries with a high frequency of *interreg\_6*, *relevn\_3* and *relevn\_4* to the rest of the sample.

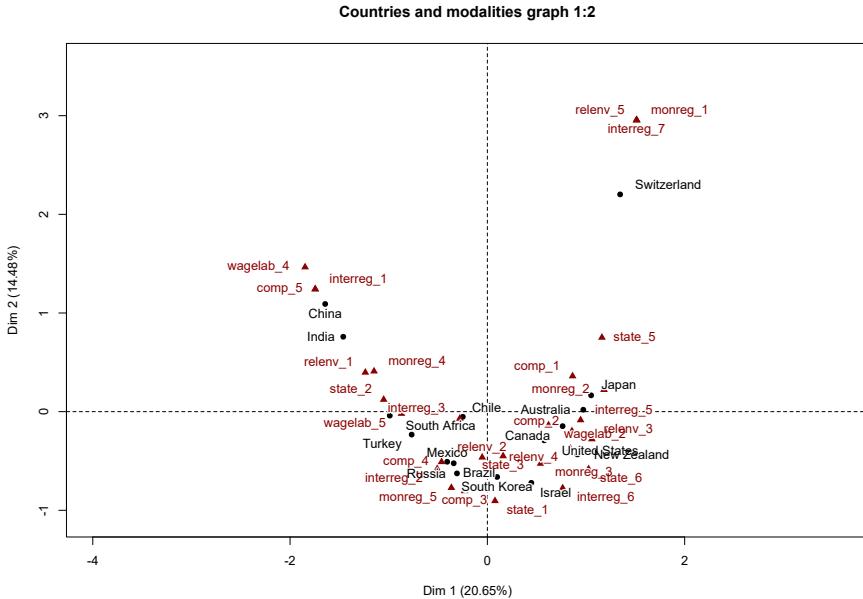


Figure A64: Factorial plans of axes 1 and 2 for the countries and the modalities of each variable for the non-EU sample.

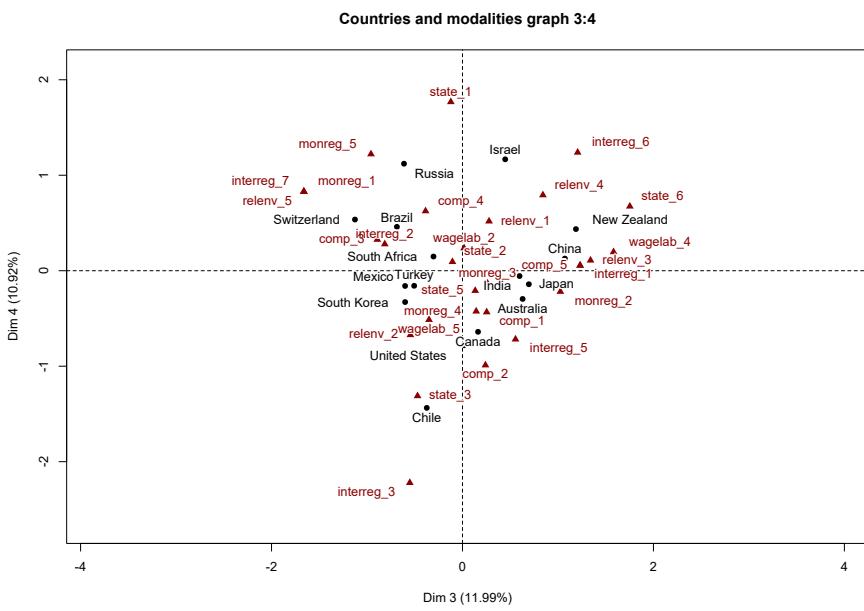


Figure A65: Factorial plans of axes 3 and 4 for the countries and the modalities of each variable for the non-EU sample.

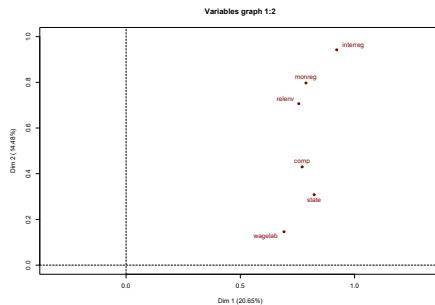


Figure A66: Correlation of the variables to the axes 1 and 2 for the non-EU sample.

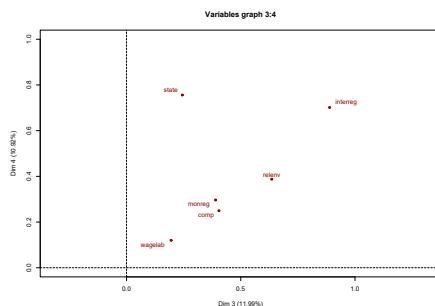


Figure A67: Correlation of the variables to the axes 3 and 4 for the non-EU sample.

	Coordinate				Sqaure cosine				Contribution			
	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4
relev_1	-1.24	0.40	0.28	0.52	0.51	0.05	0.03	0.09	8.06	1.19	0.70	2.67
relev_2	-0.05	-0.46	-0.55	-0.67	0.00	0.17	0.23	0.35	0.03	2.82	4.72	7.87
relev_3	1.06	-0.28	1.34	0.11	0.16	0.01	0.26	0.00	2.96	0.29	8.16	0.06
relev_4	0.84	-0.37	0.84	0.79	0.10	0.02	0.10	0.09	1.87	0.52	3.22	3.13
relev_5	1.51	2.96	-1.66	0.83	0.15	0.58	0.18	0.05	3.01	16.40	6.26	1.71
monreg_1	1.51	2.96	-1.66	0.83	0.15	0.58	0.18	0.05	3.01	16.40	6.26	1.71
monreg_2	1.18	0.22	1.03	-0.22	0.09	0.00	0.07	0.00	1.84	0.09	2.38	0.12
monreg_3	0.54	-0.53	0.26	-0.13	0.23	0.22	0.05	0.01	2.69	3.64	1.09	0.31
monreg_4	-1.15	0.41	0.14	-0.43	0.60	0.08	0.01	0.08	8.69	1.57	0.23	2.25
monreg_5	-0.37	-0.77	-0.96	1.22	0.02	0.09	0.13	0.21	0.35	2.23	4.16	7.43
wagelab_2	0.62	-0.14	0.02	0.24	0.64	0.03	0.00	0.09	5.06	0.35	0.01	1.40
wagelab_4	-1.85	1.47	1.58	0.20	0.23	0.14	0.17	0.00	4.50	4.03	5.68	0.10
wagelab_5	-0.87	-0.02	-0.35	-0.51	0.35	0.00	0.06	0.12	4.99	0.00	1.39	3.28
comp_1	0.86	0.36	0.25	-0.43	0.45	0.08	0.04	0.11	5.89	1.46	0.87	2.80
comp_2	0.86	-0.20	0.24	-0.99	0.05	0.00	0.00	0.07	0.97	0.07	0.13	2.44
comp_3	-0.23	-0.80	-0.89	0.33	0.01	0.15	0.18	0.03	0.21	3.64	5.41	0.80
comp_4	-0.46	-0.51	-0.39	0.63	0.07	0.09	0.05	0.13	1.14	1.95	1.36	3.89
comp_5	-1.75	1.24	1.23	0.06	0.44	0.22	0.22	0.00	8.02	5.79	6.88	0.02
state_1	0.08	-0.90	-0.12	1.77	0.00	0.12	0.00	0.45	0.02	3.07	0.07	15.56
state_2	-1.05	0.12	-0.11	0.09	0.66	0.01	0.01	0.01	8.72	0.17	0.15	0.13
state_3	0.16	-0.45	-0.47	-1.31	0.01	0.05	0.05	0.40	0.10	1.14	1.51	12.85
state_5	1.16	0.75	0.13	-0.21	0.45	0.19	0.01	0.02	7.10	4.24	0.16	0.44
state_6	1.03	-0.58	1.75	0.67	0.07	0.02	0.21	0.03	1.39	0.64	6.97	1.13
interreg_1	-1.75	1.24	1.23	0.06	0.44	0.22	0.22	0.00	8.02	5.79	6.88	0.02
interreg_2	-0.51	-0.58	-0.81	0.28	0.16	0.20	0.40	0.05	2.04	3.79	9.01	1.16
interreg_3	-0.28	-0.07	-0.55	-2.22	0.01	0.00	0.02	0.33	0.10	0.01	0.69	12.27
interreg_5	0.95	-0.09	0.56	-0.72	0.30	0.00	0.10	0.17	4.70	0.05	2.80	5.13
interreg_6	0.76	-0.78	1.21	1.24	0.08	0.09	0.21	0.22	1.54	2.26	6.60	7.64
interreg_7	1.51	2.96	-1.66	0.83	0.15	0.58	0.18	0.05	3.01	16.40	6.26	1.71

Table A48: Detailed results of the MCA applied to the non-Euro. union sample, for the variables.

	Coordinate				Sqaure cosine				Contribution			
	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4	Dim 1	Dim 2	Dim 3	Dim 4
Australia	0.97	0.02	0.63	-0.30	0.34	0.00	0.14	0.03	7.47	0.00	5.40	1.30
Brazil	-0.34	-0.52	-0.69	0.46	0.05	0.11	0.19	0.08	0.92	3.08	6.41	3.16
Canada	0.76	-0.15	0.16	-0.64	0.14	0.01	0.01	0.10	4.60	0.24	0.36	6.11
Chile	-0.25	-0.05	-0.37	-1.44	0.01	0.00	0.03	0.46	0.49	0.03	1.90	30.82
China	-1.64	1.09	1.07	0.13	0.45	0.20	0.19	0.00	21.34	13.42	15.65	0.24
India	-1.46	0.76	0.60	-0.06	0.56	0.15	0.09	0.00	16.86	6.49	4.86	0.05
Israel	0.45	-0.72	0.45	1.17	0.05	0.12	0.05	0.32	1.57	5.86	2.72	20.33
Japan	1.05	0.17	0.70	-0.14	0.22	0.01	0.10	0.00	8.74	0.31	6.57	0.30
Mexico	-0.41	-0.51	-0.60	-0.16	0.08	0.12	0.17	0.01	1.31	2.91	4.92	0.38
New Zealand	0.91	-0.43	1.19	0.44	0.15	0.04	0.26	0.04	6.58	2.12	19.21	2.84
Russia	-0.31	-0.63	-0.61	1.12	0.02	0.10	0.10	0.32	0.75	4.41	5.11	18.76
South Africa	-0.99	-0.04	-0.30	0.15	0.43	0.00	0.04	0.01	7.73	0.02	1.25	0.33
South Korea	0.10	-0.66	-0.60	-0.33	0.00	0.20	0.16	0.05	0.08	4.94	4.91	1.61
Switzerland	1.35	2.20	-1.13	0.54	0.22	0.58	0.15	0.03	14.31	54.61	17.25	4.29
Turkey	-0.77	-0.23	-0.51	-0.16	0.29	0.03	0.13	0.01	4.65	0.61	3.48	0.37
United States	0.58	-0.29	0.02	-0.78	0.16	0.04	0.00	0.30	2.62	0.95	0.00	9.10

Table A49: Detailed results of the MCA applied to the non-Euro. union sample, for the countries.

## 12.2 Clustering

As indicated by figures A68 and A69, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying a such a clustering and the inter-inertia gains are still substantial. Table A50 indicates which variables characterize the most each cluster. Figures A70 and A71 show the composition of the clusters and their position on the factorial plans built from the selected axes. Finally, table A51 sums up the characteristics of each mode of regulation identified in the non-European union sample.

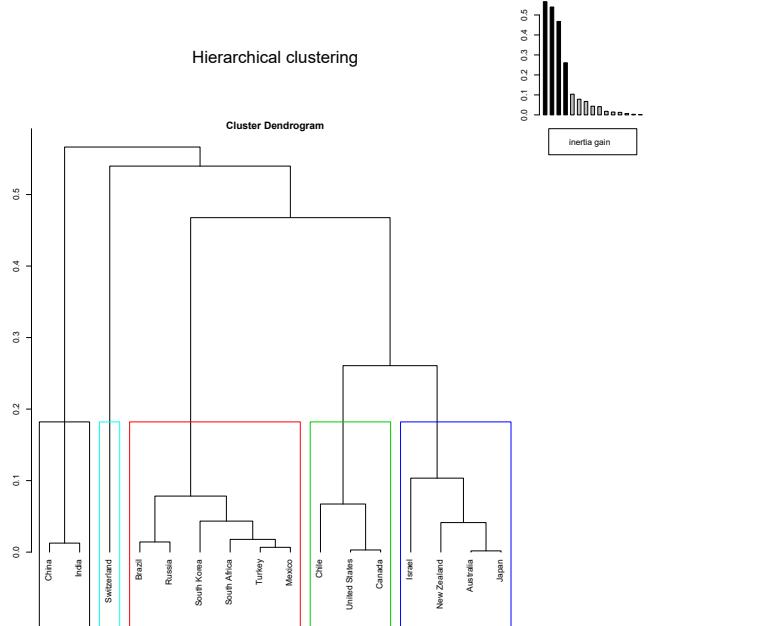


Figure A68: Hierarchical tree for the clustering of modes of regulation upon the non-EU sample

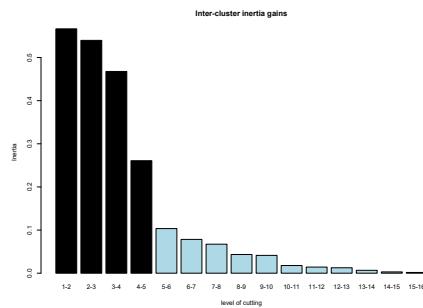


Figure A69: Inter-clusters inertia gains to partition the non-EU sample into five clusters.



	Cla/Mod	Mod/Cla	1	Global	P.value	v.test	Cla/Mod	Mod/Cla	2	Global	P.value	v.test	Cla/Mod	Mod/Cla	3	Global	P.value	v.test
comp_1	0.00	0.00	37.50	0.38	-0.89	0.00	0.00	0.00	37.50	0.03	-2.22	33.33	66.67	37.50	0.34	0.96		
comp_2	0.00	0.00	6.25	0.88	-0.16	0.00	6.25	0.63	-0.49	100.00	0.00	0.00	33.33	6.25	0.19	1.32		
comp_3	0.00	0.00	18.75	0.65	-0.45	100.00	50.00	18.75	0.04	2.10	0.00	0.00	18.75	0.51	-0.66			
comp_4	0.00	0.00	25.00	0.55	-0.60	75.00	50.00	25.00	0.13	1.53	0.00	0.00	25.00	0.39	-0.85			
comp_5	100.00	100.00	12.50	0.01	2.64	0.00	12.50	0.38	-0.89	0.00	0.00	0.00	12.50	0.65	-0.45			
interreg_1	100.00	100.00	12.50	0.01	2.64	0.00	12.50	0.38	-0.89	0.00	0.00	0.00	12.50	0.65	-0.45			
interreg_2	0.00	0.00	37.50	0.38	-0.89	100.00	100.00	37.50	0.00	3.84	0.00	0.00	37.50	0.21	-1.24			
interreg_3	0.00	0.00	6.25	0.88	-0.16	0.00	6.25	0.63	-0.49	100.00	0.00	0.00	6.25	0.19	1.32			
interreg_4	0.00	0.00	25.00	0.55	-0.60	0.00	25.00	0.12	1.57	50.00	0.00	0.00	25.00	0.14	1.47			
interreg_5	0.00	0.00	12.50	0.76	-0.31	0.00	12.50	0.38	-0.89	0.00	0.00	0.00	12.50	0.65	-0.45			
interreg_6	0.00	0.00	6.25	0.88	-0.16	0.00	6.25	0.63	-0.49	0.00	0.00	0.00	6.25	0.81	-0.24			
interreg_7	0.00	0.00	6.25	0.88	-0.16	0.00	6.25	0.63	-0.49	0.00	0.00	0.00	6.25	0.81	-0.24			
monreg_1	0.00	0.00	43.75	0.30	-1.04	28.57	33.33	43.75	0.57	-0.57	28.57	0.00	0.00	43.75	0.46	0.74		
monreg_2	0.00	0.00	6.25	0.88	-0.16	0.00	6.25	0.63	-0.49	0.00	0.00	0.00	6.25	0.92	0.10			
monreg_3	0.00	0.00	43.75	0.30	-1.04	31.25	33.33	31.25	0.90	0.13	20.00	0.00	0.00	31.25	0.92	0.10		
monreg_4	0.00	0.00	31.25	0.08	1.73	40.00	33.33	31.25	0.90	0.13	20.00	0.00	0.00	31.25	0.92	0.10		
monreg_5	0.00	0.00	12.50	0.76	-0.31	100.00	100.00	12.50	0.13	1.53	0.00	0.00	12.50	0.65	-0.45			
relevy_1	50.00	100.00	25.00	0.00	0.05	1.96	50.00	33.33	25.00	0.61	0.51	0.00	25.00	0.39	-0.85			
relevy_2	0.00	0.00	43.75	0.30	-1.04	57.14	66.67	43.75	0.21	1.26	42.86	0.00	0.00	43.75	0.06	1.86		
relevy_3	0.00	0.00	12.50	0.76	-0.31	0.00	12.50	0.38	-0.89	0.00	0.00	0.00	12.50	0.65	-0.45			
relevy_4	0.00	0.00	12.50	0.76	-0.31	0.00	12.50	0.38	-0.89	0.00	0.00	0.00	12.50	0.65	-0.45			
relevy_5	0.00	0.00	6.25	0.88	-0.16	0.00	6.25	0.63	-0.49	0.00	0.00	0.00	6.25	0.81	-0.24			
relevy_6	0.00	0.00	12.50	0.76	-0.31	50.00	16.67	12.50	0.75	0.32	0.00	0.00	12.50	0.65	-0.45			
state_1	0.00	0.00	37.50	0.13	1.53	66.67	66.67	37.50	0.10	1.65	0.00	0.00	37.50	0.21	-1.24			
state_2	33.33	100.00	18.75	0.65	-0.45	33.33	16.67	18.75	0.91	-0.11	66.67	0.00	0.00	18.75	0.07	1.79		
state_3	0.00	0.00	18.75	0.30	-0.31	57.14	66.67	43.75	0.21	1.26	42.86	0.00	0.00	43.75	0.06	1.86		
state_4	0.00	0.00	12.50	0.76	-0.31	0.00	12.50	0.38	-0.89	0.00	0.00	0.00	12.50	0.65	-0.45			
state_5	0.00	0.00	6.25	0.88	-0.16	0.00	6.25	0.63	-0.49	0.00	0.00	0.00	6.25	0.81	-0.24			
state_6	0.00	0.00	25.00	0.55	-0.60	0.00	25.00	0.12	1.57	25.00	0.00	0.00	25.00	0.33	0.33			
wagelab_2	0.00	0.00	6.25	0.88	-0.16	0.00	6.25	0.63	-0.49	0.00	0.00	0.00	6.25	0.81	-0.24			
wagelab_3	100.00	50.00	6.25	0.13	-1.53	30.00	50.00	62.50	0.48	-0.70	20.00	0.00	0.00	62.50	0.91	0.11		
wagelab_4	20.00	50.00	6.25	0.13	-1.53	30.00	50.00	62.50	0.63	-0.49	20.00	0.00	0.00	62.50	0.91	0.11		
wagelab_5	20.00	50.00	31.25	0.63	0.49	60.00	50.00	31.25	0.28	1.09	20.00	0.00	0.00	31.25	0.92	0.10		
			4						5									
comp_1	50.00	75.00	37.50	0.13	1.53	16.67	100.00	100.00	37.50	0.38	0.89							
comp_2	0.00	0.00	6.25	0.75	-0.32	0.00	6.25	0.63	-0.49	0.00	0.00	0.00	6.25	0.94	-0.08			
comp_3	0.00	0.00	18.75	0.39	-0.85	0.00	18.75	0.12	1.53	0.00	0.00	0.00	18.75	0.81	-0.24			
comp_4	25.00	25.00	25.00	0.97	-0.03	0.00	25.00	0.00	0.00	25.00	0.75	0.00	25.00	0.88	-0.32			
comp_5	0.00	0.00	12.50	0.55	-0.60	0.00	12.50	0.00	0.00	12.50	0.75	0.00	12.50	0.88	-0.16			
interreg_1	0.00	0.00	12.50	0.35	-0.60	0.00	12.50	0.00	0.00	12.50	0.75	0.00	12.50	0.88	-0.16			
interreg_2	0.00	0.00	37.50	0.12	1.57	-0.32	0.00	0.00	0.00	37.50	0.63	0.00	37.50	0.94	-0.08			
interreg_3	0.00	0.00	6.25	0.75	-0.32	0.00	6.25	0.63	-0.49	0.00	0.00	0.00	6.25	0.88	-0.24			
interreg_4	50.00	50.00	25.00	0.27	1.10	0.00	25.00	0.00	0.00	25.00	0.75	0.00	25.00	0.88	-0.32			
interreg_5	100.00	50.00	12.50	0.05	1.96	0.00	12.50	0.00	0.00	12.50	0.88	0.00	12.50	0.88	-0.16			
interreg_6	100.00	0.00	6.25	0.75	-0.32	100.00	100.00	6.25	0.06	1.86	0.00	0.00	6.25	0.94	-0.08			
interreg_7	0.00	0.00	6.25	0.75	-0.32	100.00	100.00	6.25	0.06	1.86	0.00	0.00	6.25	0.94	-0.08			
monreg_1	0.00	0.00	6.25	0.75	-0.32	100.00	100.00	6.25	0.06	1.86	0.00	0.00	6.25	0.94	-0.08			
monreg_2	100.00	50.00	75.00	0.21	1.25	0.00	0.00	0.00	43.75	0.56	0.89							
monreg_3	42.86	0.00	31.25	0.18	-1.34	0.00	0.00	0.00	31.25	0.69	-0.40							
monreg_4	0.00	0.00	12.50	0.55	-0.60	0.00	0.00	0.00	12.50	0.88	-0.16							
monreg_5	0.00	0.00	25.00	0.27	-1.10	0.00	0.00	0.00	25.00	0.75	-0.32							
relevy_1	0.00	0.00	43.75	0.07	-1.82	0.00	0.00	0.00	43.75	0.56	-0.58							
relevy_2	0.00	0.00	50.00	0.27	1.10	0.00	0.00	0.00	50.00	0.94	-0.08							
relevy_3	100.00	50.00	12.50	0.05	1.96	0.00	0.00	0.00	12.50	0.88	-0.16							
relevy_4	100.00	0.00	12.50	0.05	1.96	0.00	0.00	0.00	12.50	0.88	-0.16							
relevy_5	50.00	0.00	37.50	0.12	-1.57	0.00	0.00	0.00	37.50	0.63	-0.49							
state_1	0.00	0.00	18.75	0.39	-0.85	0.00	0.00	0.00	18.75	0.81	-0.24							
state_2	0.00	0.00	25.00	0.27	1.10	0.00	0.00	0.00	25.00	0.75	-0.32							
state_3	0.00	0.00	50.00	0.27	1.10	0.00	0.00	0.00	50.00	0.94	-0.08							
state_4	0.00	0.00	25.00	0.27	1.10	0.00	0.00	0.00	25.00	0.75	-0.32							
state_5	0.00	0.00	6.25	0.75	-0.32	100.00	100.00	6.25	0.06	1.86	0.00	0.00	6.25	0.94	-0.08			
state_6	100.00	100.00	6.25	0.12	1.57	0.00	0.00	0.00	100.00	0.94	-0.08							
wagelab_2	40.00	100.00	6.25	0.75	-0.32	0.00	0.00	0.00	6.25	0.63	-0.40							
wagelab_3	0.00	0.00	31.25	0.18	-1.34	0.00	0.00	0.00	31.25	0.69	-0.40							
wagelab_4	0.00	0.00	6.25	0.75	-0.32	0.00	0.00	0.00	6.25	0.63	-0.40							
wagelab_5	0.00	0.00	31.25	0.18	-1.34	0.00	0.00	0.00	31.25	0.69	-0.40							

Table A50: Detailed results for the clustering on the non-European union sample, for the variables. See table A37 for the interpretation of the data.

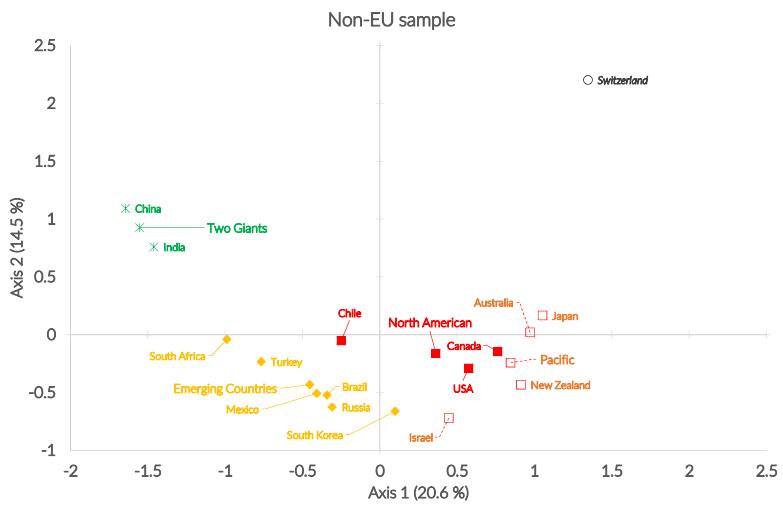


Figure A70: Composition of the clusters identified in the non-European union sample and projection on the factorial plan of the dimensions 1 and 2. Countries with an empty circle are on their own.

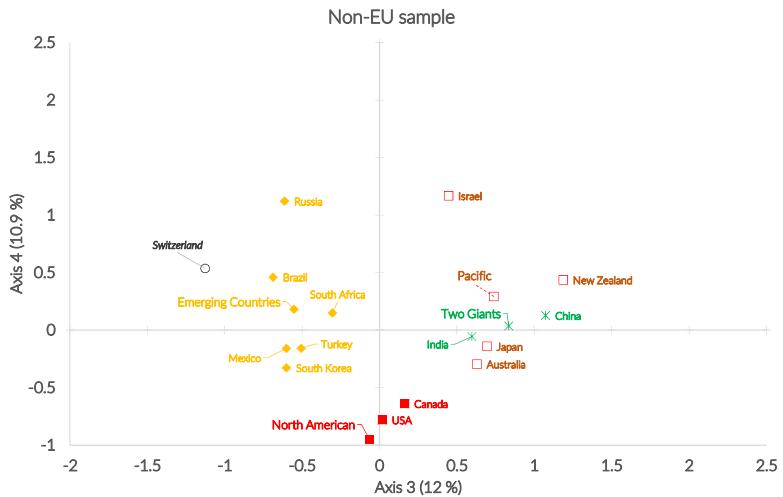


Figure A71: Composition of the clusters identified in the non-European union sample and projection on the factorial plan of the dimensions 3 and 4. Countries with an empty circle are on their own.

Non-EU - Modes of regulation	Social relation to the environment	Other institutional forms
Two Giants	Materially onshored, most unequal distribution of environmental amenities and benefits and ecology-adverse political orientation**	Financial closeness with high interest and inflation, weak preference for liquidity and loose prudential regulation.* Oriented towards profit re-investment rather than distribution, high working time and high income inequality & Labour market flexibility, capital-oriented value added distribution, high working time and high income inequality Weak competition, closeness to foreign suppliers, strong government control and strong competition in the telecom sector** Economic control- and partially welfare-oriented Insertion through agriculture and secondary sectors and a weak integration into non-political globalizations***
Emerging Countries	Ecology-adverse political orientation	Financial closeness with high interest and inflation and strong preference for liquidity & Financial closeness with high interest and inflation, weak preference for liquidity and loose prudential regulation Labour market flexibility, capital-oriented value added distribution, high working time and high income inequality Weak competition and closeness to foreign suppliers but strong competition in the postal sector and strong communication and simplification of rules and procedures** Economic control- and partially welfare-oriented* Insertion through a weak integration into all dimensions of globalization***
North-American	Ecology-adverse political orientation*	Low interest and inflation, weak preference for liquidity and loose prudential regulation Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Sovereign-, partially welfare-oriented and smaller overall size* Insertion through services sectors and political globalization
Pacific	Maternally offshored** & Ecology-prone political orientation and materially onshored for energy and GHG**	Low interest and inflation, weak preference for liquidity and loose prudential regulation Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Partially welfare-oriented and smaller overall size Insertion through FIRE services and a weak integration into political globalization** & Insertion through services sectors and political globalization
Switzerland	Maternally offshored, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation*	Financial openness with strong preference for liquidity and strict prudential regulation* Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Partially welfare-oriented and smaller overall size Insertion through non-FIRE services and a strong integration into all dimensions of globalization**

Table A51: The modes of regulation and their institutional forms for the full sample. Significant modalities of the variables at the 10, 5 and confidence 1% levels are indicated respectively by \*, \*\* and \*\*\*. The exact significance of the modalities of each variable is provided in table A50.

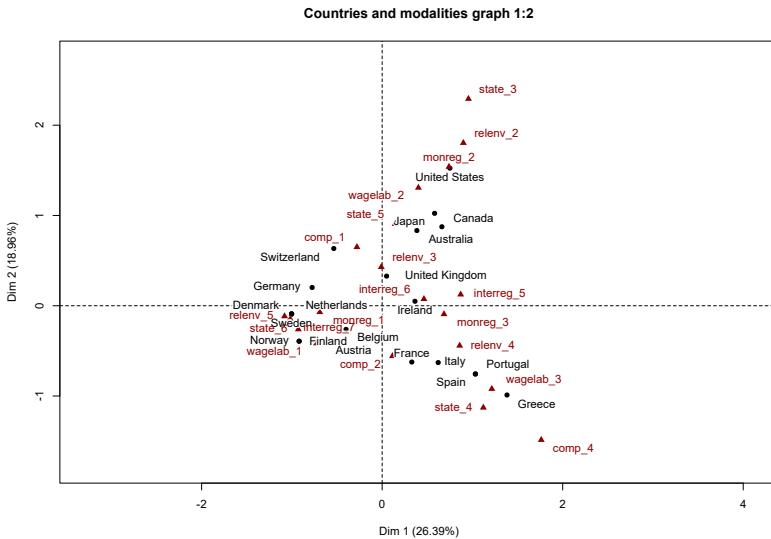
## 13 Amable and Elie et al. sample

### 13.1 Multiple correspondences analysis

South Korea had to be removed from the analysis because it was detected as an outlier and would have biased the analysis.

The first two dimensions of MCA express 45.36% of the total inertia. This value exceeds the reference value 37.7%, that is the 0.95-quantile of the inertia percentages distribution obtained by simulating 1371 data tables of same size following a uniform distribution. The first three axes contain an amount of inertia higher than those obtained by the 0.95-quantile of random distributions (59.7% against 51.33%). Therefore, the analysis will be carried on with these axes.

Axis 1 discriminates countries with a high frequency of *state\_6*, *interreg\_7*, *wagelab\_1*, *relevn\_5* and a low frequency of *state\_4*, *state\_5*, *wagelab\_2*, *relevn\_4* and *interreg\_5* and countries with a high frequency of *state\_4*, *state\_5*, *interreg\_5*, *interreg\_6*, *monreg\_2*, *monreg\_3*, *relevn\_2*, *relevn\_4*, *wagelab\_2* and *wagelab\_3* and a low frequency of *relevn\_5*, *state\_6*, *interreg\_7* and *comp\_1*. Axis 2 separates countries with a high frequency of *state\_5*, *interreg\_6*, *monreg\_2*, *monreg\_3*, *relevn\_2* and *wagelab\_3* from countries with a high frequency of *relevn\_2*, *wagelab\_2* and *monreg\_3*. Axis 3 distinguishes countries whose variables frequencies do not significantly differ from the mean and with a high frequency for *state\_5*, *interreg\_6* and *monreg\_2* from countries with high frequencies of *relevn\_2*, *wagelab\_2* and *monreg\_3*.



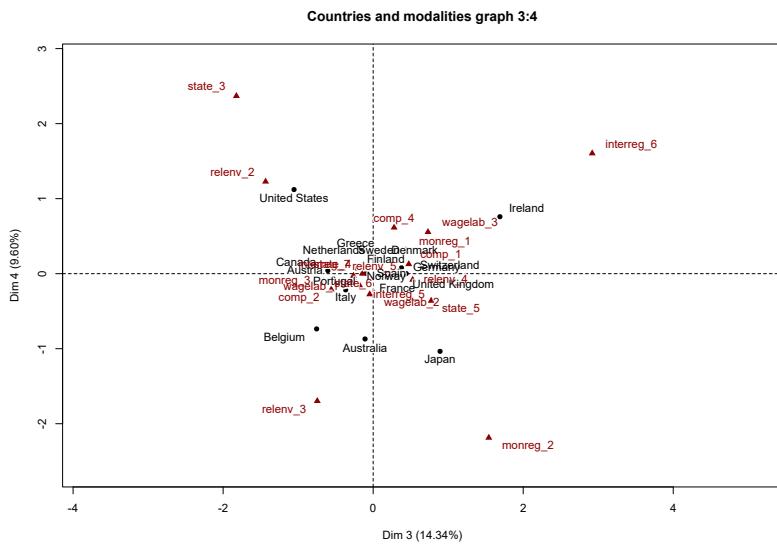


Figure A73: Projection of the countries and the modalities of each variables on the factorial plan of the axes 3 and 4 for the Amable and Elie et al. sample.

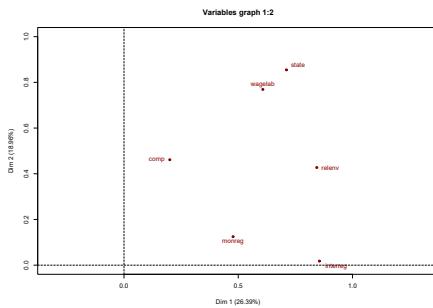


Figure A74: Correlation of the variables to the axes 3 and 4 for the Amable and Elie et al. sample.

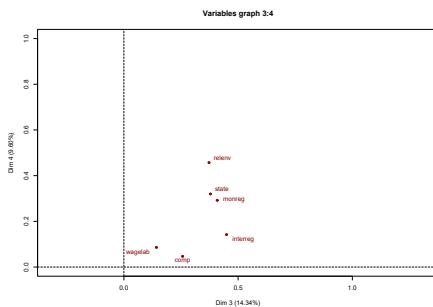


Figure A75: Correlation of the variables to the axes 3 and 4 for the Amable and Elie et al. sample.

Table A52: Add caption

	Coordinate			Square cosines			Contribution		
	Dim 1	Dim 2	Dim 3	Dim 1	Dim 2	Dim 3	Dim 1	Dim 2	Dim 3
relevn_2	0.90	1.80	-1.43	0.09	0.36	0.23	2.19	12.25	10.24
relevn_3	-0.01	0.43	-0.75	0.00	0.02	0.06	0.00	0.70	2.76
relevn_4	0.86	-0.44	0.53	0.49	0.13	0.19	7.99	2.94	5.54
relevn_5	-1.08	-0.12	0.02	0.78	0.01	0.00	12.66	0.20	0.01
monreg_1	-0.69	-0.07	0.44	0.48	0.01	0.19	6.46	0.09	4.76
monreg_2	0.74	1.54	1.54	0.03	0.13	0.13	0.74	4.46	5.92
monreg_3	0.69	-0.09	-0.66	0.38	0.01	0.35	5.72	0.15	9.67
wagelab_1	-0.73	-0.42	-0.27	0.53	0.17	0.07	7.15	3.26	1.74
wagelab_2	0.40	1.31	-0.05	0.07	0.73	0.00	1.31	19.32	0.03
wagelab_3	1.22	-0.92	0.73	0.37	0.21	0.13	7.99	6.39	5.32
comp_1	-0.28	0.65	0.48	0.08	0.42	0.23	1.06	7.96	5.61
comp_2	0.12	-0.56	-0.56	0.01	0.25	0.26	0.16	5.26	6.99
comp_4	1.76	-1.49	0.28	0.16	0.12	0.00	4.20	4.16	0.19
state_3	0.96	2.29	-1.82	0.05	0.28	0.18	1.24	9.89	8.28
state_4	1.12	-1.13	-0.14	0.42	0.42	0.01	8.50	11.99	0.26
state_5	0.14	0.91	0.77	0.01	0.35	0.26	0.17	9.28	8.95
state_6	-0.93	-0.26	-0.26	0.58	0.05	0.05	9.33	1.03	1.37
interreg_5	0.87	0.13	-0.18	0.76	0.02	0.03	10.24	0.29	0.77
interreg_6	0.46	0.08	2.92	0.01	0.00	0.45	0.29	0.01	21.23
interreg_7	-1.02	-0.15	-0.13	0.85	0.02	0.01	12.62	0.37	0.37

Table A53: Detailed results for the Mca applied to the Amable (2003); Elie et al. (2012) sample, for the variables.

Table A54: Add caption

	Coordinate			Square cosines			Contribution		
	Dim 1	Dim 2	Dim 3	Dim 1	Dim 2	Dim 3	Dim 1	Dim 2	Dim 3
Australia	0.39	0.83	-0.11	0.05	0.25	0.00	1.20	7.84	0.18
Austria	-0.63	-0.40	-0.53	0.31	0.12	0.22	3.20	1.80	4.26
Belgium	-0.40	-0.26	-0.75	0.06	0.03	0.23	1.30	0.78	8.49
Canada	0.66	0.88	-0.60	0.15	0.27	0.13	3.55	8.65	5.46
Denmark	-1.00	-0.09	0.08	0.84	0.01	0.01	8.18	0.09	0.09
Finland	-0.92	-0.39	-0.22	0.68	0.12	0.04	6.87	1.74	0.72
France	0.33	-0.62	-0.05	0.07	0.27	0.00	0.88	4.39	0.04
Germany	-0.78	0.20	0.38	0.45	0.03	0.11	4.89	0.46	2.13
Greece	1.38	-0.99	0.16	0.39	0.20	0.01	15.53	11.04	0.39
Ireland	0.36	0.05	1.69	0.03	0.00	0.59	1.07	0.03	42.63
Italy	0.62	-0.63	-0.37	0.26	0.27	0.09	3.13	4.48	2.01
Japan	0.58	1.02	0.89	0.08	0.23	0.18	2.74	11.84	11.88
Netherlands	-1.00	-0.09	0.08	0.84	0.01	0.01	8.18	0.09	0.09
Norway	-0.92	-0.39	-0.22	0.68	0.12	0.04	6.87	1.74	0.72
Portugal	1.03	-0.76	-0.08	0.54	0.29	0.00	8.67	6.46	0.10
Spain	1.03	-0.76	-0.08	0.54	0.29	0.00	8.67	6.46	0.10
Sweden	-1.00	-0.09	0.08	0.84	0.01	0.01	8.18	0.09	0.09
Switzerland	-0.54	0.63	0.44	0.18	0.26	0.12	2.33	4.54	2.89
United Kingdom	0.05	0.33	0.28	0.00	0.08	0.05	0.02	1.22	1.13
United States	0.75	1.53	-1.06	0.10	0.42	0.20	4.57	26.26	16.62

Table A55: Detailed results for the MCA applied to the Amable (2003); Elie et al. (2012) sample, for the countries.

## 13.2 Clustering

As indicated by figures A76 and A77, the clustering process led to select five classes. The hierarchical tree exhibits fairly long branches justifying a such a clustering and the inter-inertia gains are still substantial. Table A56 indicates which variables characterize the most each cluster. Figures A78 and A79 show the composition of the clusters and their position on the factorial plans built from the selected axes. Finally, table A57 sums up the characteristics of each mode of regulation identified in the Amable (2003) and Elie et al. (2012) sample.

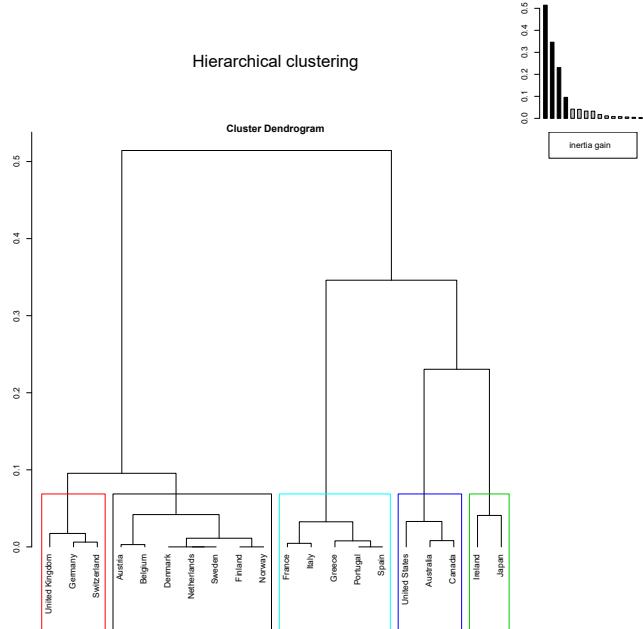


Figure A76: Hierarchical tree for the clustering of modes of regulation upon the Amable and Elie et al. sample

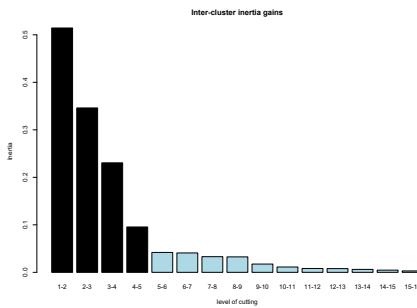


Figure A77: Inter-clusters inertia gain to partition the Amable and Elie et al. sample into five classes.

	Cla/Mod	Mod/Cla	1	Global	P.value	v.test	Cla/Mod	Mod/Cla	2	Global	P.value	v.test	Cla/Mod	Mod/Cla	3	Global	P.value	v.test
comp_1	30.00	42.86	50.00	0.68	-0.42	30.00	100.00	50.00	0.11	1.62	20.00	100.00	50.00	0.24	1.18			
comp_2	44.44	57.14	45.00	0.47	0.45	0.00	0.00	45.00	0.15	-1.46	0.00	45.00	0.29	0.29		-1.06		
comp_4	0.00	5.00	0.65	-0.45	0.00	0.00	5.00	0.85	-0.19	0.00	0.00	5.00	0.90	0.90		-0.13		
interreg_5	0.00	0.00	50.00	0.00	-3.17	10.00	33.33	50.00	0.61	-0.52	10.00	50.00	50.00	50.00	1.00	0.00	0.00	
interreg_6	0.00	0.00	5.00	0.65	-0.45	0.00	0.00	5.00	0.85	-0.19	100.00	50.00	50.00	50.00	0.10	1.65		
interreg_7	77.78	100.00	45.00	0.00	3.50	22.22	66.67	45.00	0.50	0.68	0.00	45.00	0.29	0.29		-1.06		
monreg_1	50.00	71.43	50.00	0.20	1.27	30.00	100.00	50.00	0.11	1.62	10.00	50.00	50.00	50.00	1.00	0.00	0.00	
monreg_3	22.22	28.57	5.00	0.65	-0.45	0.00	0.00	5.00	0.85	-0.19	100.00	50.00	50.00	50.00	0.10	1.65		
monreg_5	0.00	0.00	45.00	0.33	-0.97	0.00	0.00	45.00	0.15	-1.46	0.00	45.00	0.29	0.29		-1.06		
relenv_2	0.00	0.00	10.00	0.41	-0.82	0.00	0.00	10.00	0.72	-1.36	0.00	10.00	0.81	0.81		-0.25		
relevn_3	50.00	14.29	40.00	0.70	0.39	0.00	0.00	40.00	0.72	-1.36	0.00	40.00	0.81	0.81		-0.25		
relevn_4	0.00	0.00	40.00	0.01	-2.57	12.50	33.33	40.00	0.85	-0.19	25.00	40.00	40.00	40.00	0.15	1.45		
relevn_5	75.00	85.71	40.00	0.01	2.84	25.00	66.67	40.00	0.39	0.85	0.00	40.00	0.35	0.35		-0.94		
state_3	0.00	0.00	5.00	0.65	-0.45	0.00	0.00	5.00	0.85	-0.19	0.00	5.00	0.90	0.90		-0.13		
state_4	0.00	0.00	25.00	0.08	-1.73	0.00	0.00	25.00	0.40	-0.84	0.00	25.00	0.55	0.55		-0.59		
state_5	0.00	0.00	30.00	0.04	-2.01	33.33	66.67	30.00	0.22	1.23	33.33	100.00	30.00	30.00	0.08	1.76		
state_6	87.50	100.00	40.00	0.00	3.88	12.50	33.33	40.00	0.85	-0.19	0.00	40.00	0.35	0.35		-0.94		
wagelab_1	70.00	100.00	50.00	0.00	3.17	10.00	33.33	50.00	0.61	-0.52	0.00	50.00	0.24	0.24		-1.18		
wagelab_2	0.00	0.00	30.00	0.04	-2.01	33.33	66.67	30.00	0.22	1.23	16.67	50.00	30.00	30.00	0.60	0.52		
wagelab_3	0.00	0.00	20.00	0.15	-1.45	0.00	0.00	20.00	0.49	-0.69	25.00	50.00	20.00	20.00	0.40	0.84		
			4						5									
comp_1	20.00	66.67	50.00	0.61	0.52	0.00	0.00	50.00	0.02	-2.40								
comp_2	11.11	33.33	45.00	0.72	-0.35	44.44	80.00	45.00	0.11	1.62								
comp_4	0.00	5.00	0.85	-0.19	100.00	20.00	50.00	50.00	0.25	1.15								
interreg_5	30.00	100.00	50.00	0.11	1.62	50.00	100.00	50.00	0.02	2.40								
interreg_6	0.00	0.00	5.00	0.85	-0.19	0.00	0.00	5.00	0.75	0.75								
interreg_7	0.00	0.00	45.00	0.15	-1.46	0.00	0.00	45.00	0.03	0.03								
monreg_1	0.00	0.00	50.00	0.11	-1.62	10.00	20.00	50.00	0.17	-1.38								
monreg_2	0.00	0.00	5.00	0.85	-0.19	0.00	0.00	5.00	0.75	0.75								
monreg_3	33.33	100.00	45.00	0.07	1.79	44.44	80.00	45.00	0.11	1.62								
monreg_5	100.00	66.67	10.00	0.02	2.41	0.00	0.00	10.00	0.55	-0.59								
relevn_3	50.00	33.33	10.00	0.30	1.04	0.00	0.00	10.00	0.55	-0.59								
relevn_4	0.00	0.00	40.00	0.19	-1.30	62.50	100.00	40.00	0.00	2.91								
relevn_5	0.00	0.00	40.00	0.19	-1.30	0.00	0.00	40.00	0.05	0.05								
state_3	100.00	33.33	5.00	0.15	1.44	0.00	0.00	5.00	0.75	-0.32								
state_4	0.00	0.00	25.00	0.40	-0.84	100.00	100.00	25.00	0.00	4.00								
state_5	33.33	66.67	30.00	0.22	1.23	0.00	0.00	30.00	0.13	-1.52								
state_6	0.00	0.00	40.00	0.19	-1.30	0.00	0.00	40.00	0.05	-1.95								
wagelab_1	50.00	100.00	50.00	0.11	-1.62	20.00	40.00	50.00	0.65	-0.45								
wagelab_2	0.00	0.00	30.00	0.02	2.38	0.00	0.00	30.00	0.13	-1.52								
wagelab_3	0.00	0.00	20.00	0.49	-0.69	75.00	60.00	20.00	0.03	2.13								

Table A56: Detailed results for the clustering on the Amable (2003); Eie et al. (2012) sample, for the variables. See table A37 for the interpretation of the data.

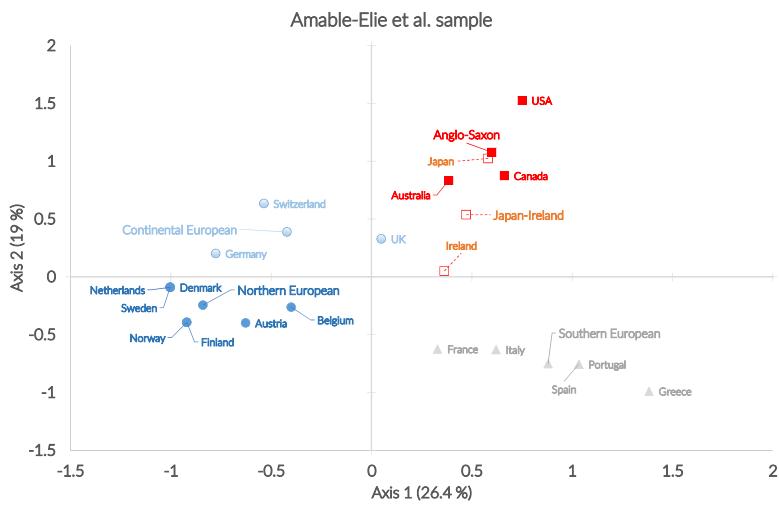


Figure A78: Composition of the clusters identified in the Amable (2003) and Elie et al. (2012) sample and projection on the factorial plan of the dimensions 1 and 2.

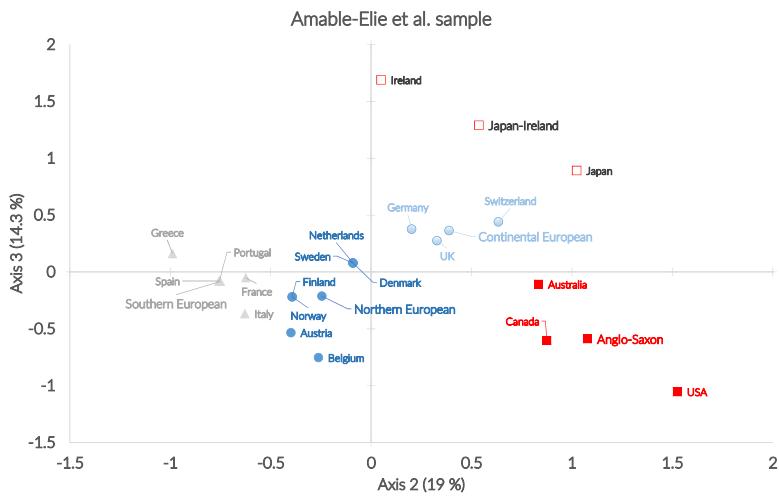


Figure A79: Composition of the clusters identified in the Amable (2003) and Elie et al. (2012) sample and projection on the factorial plan of the dimensions 3 and 4.

Amable/ Elie et al. - Modes of regulation	Social relation to the environment	Other institutional forms
Northern European	Materially offshored, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation***	Financial openness with strong preference for liquidity and strict prudential regulation Labour protective, wage-oriented value added distribution, low working time and low income inequality** Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises Strongly welfare-oriented and bigger overall size*** Insertion through non-FIRE services and a strong integration into all dimensions of globalization***
Continental European	Materially offshored, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation	Financial openness with strong preference for liquidity and strict prudential regulation Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Partially welfare-oriented and smaller overall size Insertion through non-FIRE services and a strong integration into all dimensions of globalization
Japan and Ireland	Materially offshored	Intensive activism of the central bank* & Financial openness with strong preference for liquidity and strict prudential regulation Profit-oriented value added distribution, high unemployment and low income inequality & Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Partially welfare-oriented and smaller overall size* Insertion through FIRE services and a weak integration into political globalization* & Insertion through services sectors and political globalization
Anglo-Saxon	Ecology-adverse political orientation**	Low interest and inflation, weak preference for liquidity and loose prudential regulation* Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality** Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Partially welfare-oriented and smaller overall size Insertion through services sectors and political globalization
Southern European	Materially offshored***	Low interest and inflation, weak preference for liquidity and loose prudential regulation* Profit-oriented value added distribution, high unemployment and low income inequality** Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises Weakly welfare-oriented*** Insertion through services sectors and political globalization **

Table A57: The modes of regulation and their institutional forms for the full sample. Significant modalities of the variables at the 10, 5 and confidence 1% levels are indicated respectively by \*, \*\* and \*\*\*. The exact significance of the modalities of each variable is provided in table A56.

## 14 Jahn sample

### 14.1 Multiple correspondences analysis

Axes 1 and 2 express 44.87% of the total inertia. This values exceeds the reference value 36.84%. The variability explained by this plane is significant at the 5% level (the reference value is obtained through simulation of 1443 data comparable tables on the basis of a uniform distribution). Only these two axes present an amount of inertia greater than those obtained by the 0.95-quantile of random distributions (44.87% against 36.84%). Here I kept these two axes since the information they contained is close to 50%. Also, doing so allowed to retrieve three meaningful clusters, which made the comparison with Jahn (2014) easier.

The first axis opposes countries with a high frequency for *interreg\_7*, *relenv\_5*, *wagelab\_1*, *state\_6* and *monreg\_1* and a low frequency for *wagelab\_3*, *monreg\_3*, *state\_4*, *relenv\_4* and *interreg\_5* to countries with a high frequency of *relenv\_4*, *interreg\_5* and *wagelab\_3* and a low frequency for *relenv\_5*, *interreg\_7*, *wagelab\_1* and *state\_6*.

Axis 2 discriminates between countries with a high frequency of *wagelab\_2*, *comp\_1*, *state\_5* and *relenv\_2* and a low frequency for *state\_4*, *comp\_2* and *wagelab\_1* and countries sharing a high frequency of *state\_4*, *relenv\_4*, *wagelab\_3* and *comp\_2* and a low frequency of *wagelab\_2* and *comp\_1*.

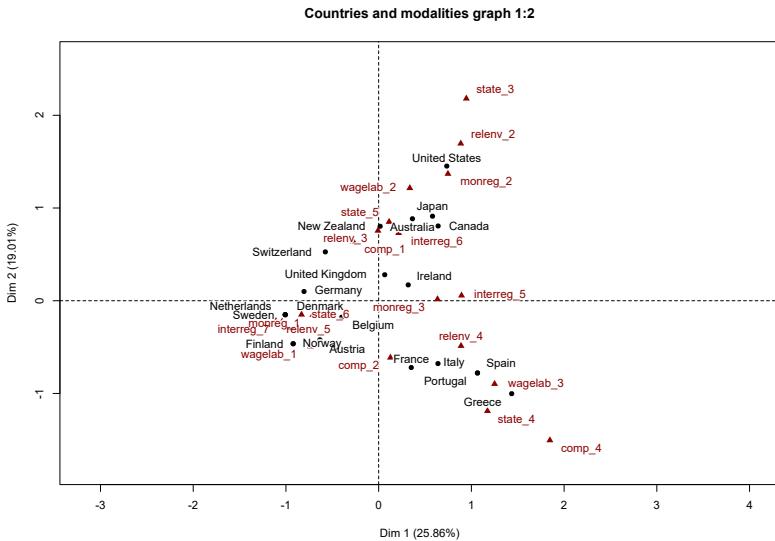


Figure A80: Projection of the countries and the modalities of each variables on the factorial plan of the axes 1 and 2 for the Jahn sample.

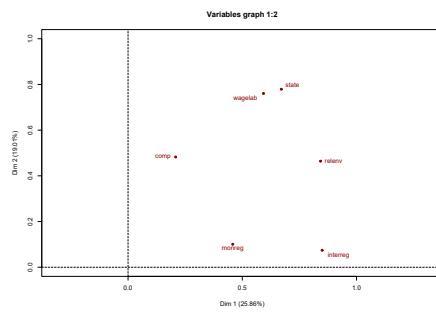


Figure A81: Correlation of the variables to the axes 1 and 2 for the Jahn sample.

	Coordinates		Square cosines		Contribution	
	Dim 1	Dim 2	Dim 1	Dim 2	Dim 1	Dim 2
<b>relev_2</b>	0.89	1.70	0.08	0.30	2.06	10.29
<b>relev_3</b>	-0.01	0.76	0.00	0.10	0.00	3.07
<b>relev_4</b>	0.89	-0.49	0.49	0.15	8.31	3.40
<b>relev_5</b>	-1.11	-0.22	0.75	0.03	12.90	0.69
<b>monreg_1</b>	-0.71	-0.15	0.46	0.02	6.62	0.42
<b>monreg_2</b>	0.75	1.37	0.03	0.09	0.74	3.35
<b>monreg_3</b>	0.64	0.02	0.37	0.00	5.30	0.01
<b>wagelab_1</b>	-0.74	-0.49	0.49	0.22	7.11	4.33
<b>wagelab_2</b>	0.34	1.22	0.06	0.74	1.04	18.49
<b>wagelab_3</b>	1.25	-0.90	0.37	0.19	8.22	5.76
<b>comp_1</b>	-0.27	0.64	0.08	0.45	1.07	8.03
<b>comp_2</b>	0.13	-0.61	0.01	0.28	0.19	6.06
<b>comp_4</b>	1.85	-1.51	0.17	0.11	4.49	4.05
<b>state_3</b>	0.95	2.18	0.05	0.24	1.18	8.51
<b>state_4</b>	1.17	-1.19	0.43	0.44	9.05	12.64
<b>state_5</b>	0.11	0.85	0.01	0.29	0.10	7.77
<b>state_6</b>	-0.83	-0.15	0.52	0.02	8.19	0.36
<b>interreg_5</b>	0.89	0.06	0.73	0.00	10.51	0.06
<b>interreg_6</b>	0.22	0.73	0.01	0.06	0.12	1.91
<b>interreg_7</b>	-1.04	-0.23	0.81	0.04	12.83	0.82

Table A58: Detailed results for the MCA applied to the Jahn (2014) sample, for the variables.

	Coordinates		Square cosines		Contribution	
	Dim 1	Dim 2	Dim 1	Dim 2	Dim 1	Dim 2
<b>Australia</b>	0.36	0.88	0.06	0.35	1.05	8.39
<b>Austria</b>	-0.63	-0.42	0.31	0.14	3.17	1.91
<b>Belgium</b>	-0.40	-0.18	0.08	0.02	1.25	0.34
<b>Canada</b>	0.64	0.81	0.14	0.22	3.25	6.98
<b>Denmark</b>	-1.01	-0.15	0.82	0.02	8.01	0.24
<b>Finland</b>	-0.92	-0.46	0.65	0.17	6.71	2.31
<b>France</b>	0.35	-0.72	0.08	0.33	0.97	5.57
<b>Germany</b>	-0.81	0.10	0.45	0.01	5.11	0.11
<b>Greece</b>	1.44	-1.00	0.40	0.19	16.24	10.78
<b>Ireland</b>	0.32	0.17	0.03	0.01	0.80	0.31
<b>Italy</b>	0.64	-0.68	0.26	0.29	3.23	4.93
<b>Japan</b>	0.58	0.91	0.07	0.18	2.66	8.92
<b>Netherlands</b>	-1.01	-0.15	0.82	0.02	8.01	0.24
<b>New Zealand</b>	0.02	0.80	0.00	0.19	0.00	6.92
<b>Norway</b>	-0.92	-0.46	0.65	0.17	6.71	2.31
<b>Portugal</b>	1.07	-0.78	0.54	0.29	8.96	6.52
<b>Spain</b>	1.07	-0.78	0.54	0.29	8.96	6.52
<b>Sweden</b>	-1.01	-0.15	0.82	0.02	8.01	0.24
<b>Switzerland</b>	-0.58	0.53	0.21	0.18	2.61	2.98
<b>United Kingdom</b>	0.07	0.28	0.00	0.06	0.03	0.85
<b>United States</b>	0.74	1.45	0.09	0.37	4.26	22.64

Table A59: Detailed results for the MCA applied to the Jahn (2014) sample, for the countries.

## 14.2 Clustering

As indicated by figures A76 and A77, the clustering process led to select three classes. The hierarchical tree exhibits fairly long branches justifying such a clustering and the inter-inertia gains are still substantial. Table A56 indicates which variables characterize the most each cluster. Figure A84 shows the composition of the clusters and their position on the factorial plans built from the selected axes. Finally, table A61 sums up the characteristics of each mode of regulation identified in the Jahn (2014) sample.

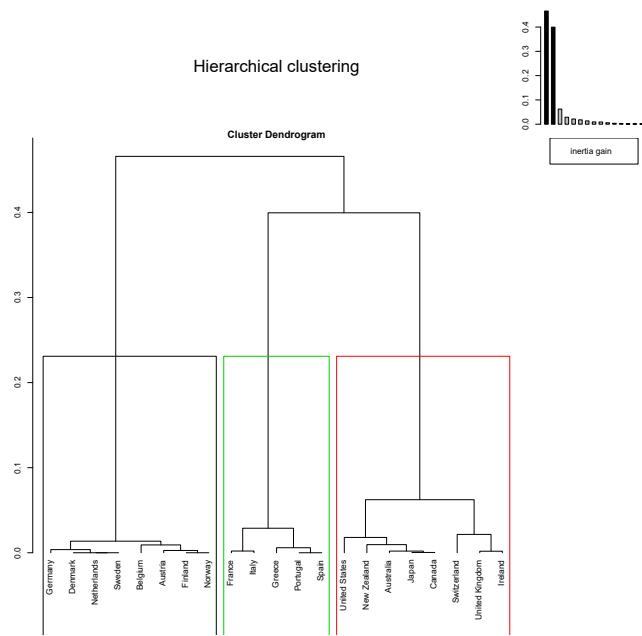


Figure A82: Hierarchical tree for the clustering of modes of regulation upon the Jahn sample

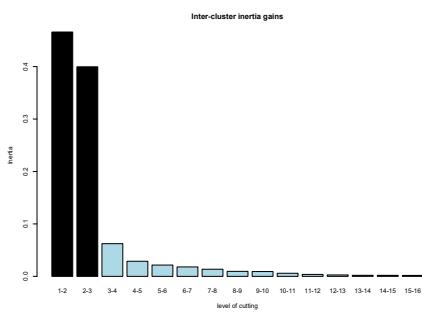


Figure A83: Inter-clusters inertia gain to partition the Jahn sample into three classes.

	Cla/Mod	Mod/Cla	Global	p-value	v. test	Cla/Mod	Mod/Cla	Global	p-value	v. test	Cla/Mod	Mod/Cla	Global	p-value	v. test	
	1	2	3													
comp_1	45.46	55.56	52.38	0.82	0.23	54.55	85.71	52.38	0.05	2.00	0.00	0.00	52.38	0.01	-2.50	
comp_2	44.44	44.44	42.86	0.91	0.12	11.11	14.29	42.86	0.09	-1.72	44.44	80.00	42.86	0.09	1.71	
comp_4	0.00	0.00	4.76	0.57	-0.57	0.00	0.00	4.76	0.67	-0.43	100.00	20.00	4.76	0.24	1.18	
interreg_5	0.00	0.00	47.62	0.00	-3.74	50.00	71.43	47.62	0.16	1.40	50.00	100.00	47.62	0.01	2.50	
interreg_6	0.00	0.00	9.52	0.31	-1.01	100.00	28.57	9.52	0.10	1.65	9.52	0.00	9.52	0.57	-0.57	
interreg_7	100.00	100.00	42.86	0.00	4.65	0.00	0.00	42.86	0.01	-2.71	0.00	0.00	42.86	0.04	-2.07	
monreg_1	70.00	77.78	0.00	47.62	0.03	2.23	20.00	14.29	47.62	0.26	-1.12	70.00	20.00	47.62	0.21	-1.26
monreg_2	0.00	0.00	4.76	0.57	-0.57	100.00	14.29	4.76	0.33	0.97	0.00	0.00	4.76	0.76	-0.30	
monreg_3	20.00	22.22	0.00	-1.87	40.00	0.06	57.14	47.62	0.58	0.56	40.00	80.00	47.62	0.14	1.48	
relev_2	0.00	0.00	9.52	0.31	-1.01	100.00	28.57	9.52	0.10	1.65	0.00	0.00	9.52	0.57	-0.57	
relev_3	33.33	11.11	14.29	0.78	-0.28	66.67	28.57	14.29	0.27	1.10	0.00	0.00	14.29	0.42	-0.81	
relev_4	0.00	0.00	38.10	0.00	-3.03	37.50	42.86	38.10	0.77	0.29	62.50	100.00	38.10	0.00	2.99	
relev_5	100.00	88.89	38.10	0.00	4.08	0.00	0.00	38.10	0.02	-2.44	0.00	0.00	38.10	0.06	-1.86	
state_3	0.00	0.00	4.76	0.57	-0.57	100.00	14.29	4.76	0.33	0.97	0.00	0.00	4.76	0.76	-0.30	
state_4	0.00	0.00	23.81	0.04	-2.07	0.00	0.00	23.81	0.10	-1.65	100.00	100.00	23.81	0.00	4.06	
state_5	33.33	22.22	28.57	0.63	-0.49	66.67	57.14	28.57	0.07	1.81	0.00	0.00	28.57	0.15	-1.45	
state_6	77.78	77.78	42.86	0.01	2.62	22.22	28.57	42.86	0.40	-0.84	0.00	0.00	42.86	0.04	-2.07	
wagelab_1	80.00	88.89	47.62	0.00	3.13	0.00	47.62	0.00	-2.99	20.00	40.00	47.62	0.74	-0.34		
wagelab_2	14.29	11.11	33.33	0.09	-1.72	85.71	33.33	0.00	3.33	0.00	0.00	33.33	0.10	-1.65		
wagelab_3	0.00	0.00	19.05	0.08	-1.74	25.00	14.29	19.05	0.76	-0.31	75.00	60.00	19.05	0.03	2.19	

Table A60: Detailed results of the clustering for the Jahn (2014) sample, for the variables. See table A37 for the interpretation of the data.

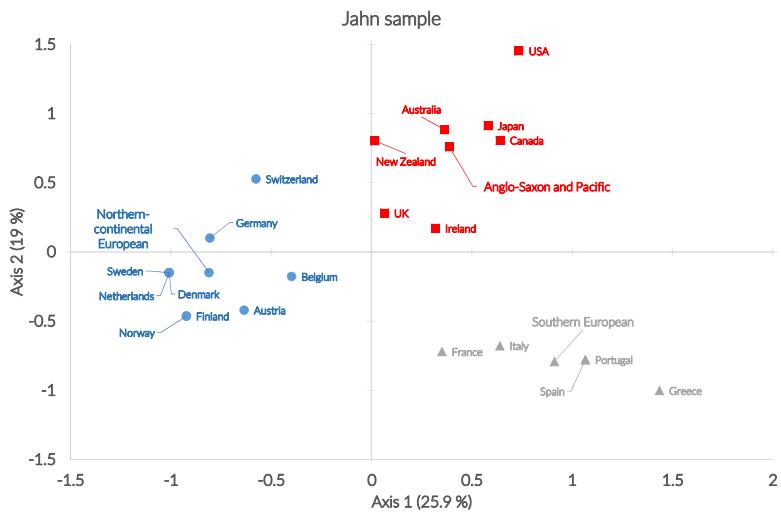


Figure A84: Composition of the clusters identified in the Jahn (2014) sample and projection on the factorial plan of the dimensions 1 and 2.

Jahn - Modes of regulation	Social relation to the environment	Other institutional forms
Northern-continental European	Materially offshored, least unequal distribution of environmental amenities and benefits and ecology-prone political orientation***	Financial openness with strong preference for liquidity and strict prudential regulation** Labour protective, wage-oriented value added distribution, low working time and low income inequality** Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises Strongly welfare-oriented and bigger overall size*** Insertion through non-FIRE services and a strong integration into all dimensions of globalization***
Anglo-Saxon and Pacific	Ecology-adverse political orientation*	Low interest and inflation, weak preference for liquidity and loose prudential regulation Labour market flexibility, wage-oriented value added distribution, low unemployment and high gender wage inequality** Strong competition in all sectors, strong openness to foreign suppliers and strong political involvement in public enterprises** Partially welfare-oriented and smaller overall size* Insertion through FIRE services and a weak integration into political globalization* & Insertion through services sectors and political globalization
Southern European	Materially offshored***	Low interest and inflation, weak preference for liquidity and loose prudential regulation* Profit-oriented value added distribution, high unemployment and low income inequality** Weak competition in services and banking, strong openness to foreign suppliers and weak political involvement in public enterprises* Weakly welfare-oriented*** Insertion through services sectors and political globalization**

Table A61: The modes of regulation and their institutional forms for the full sample. Significant modalities of the variables at the 10, 5 and confidence 1% levels are indicated respectively by \*, \*\* and \*\*\*. The exact significance of the modalities of each variable is provided in table A60.

## 15 Comparison with Amable, Elie et al. and Jahn

The following tables (A62 and A63) offer a comparison of the clusters obtained using the Jahn (2014) sample and the Amable (2003) and Elie et al. (2012) sample, as discussed in section 6 of the article.

Jahn Models of environmental politics	Countries	This article using the Jahn sample Models of capitalism including the social relation to the environment	Countries
High environmental performance and environmental policy regime	Austria, Germany, Switzerland, Denmark	Northern-continental European	Austria, Belgium, Denmark, Finland, Germany, Netherlands, Norway, Sweden, Switzerland
High environmental performance and productionist policy regime	Norway, Finland, Sweden	Anglo-Saxon and Pacific	Australia, Canada, Ireland, Japan, New Zealand, UK, USA
Lower environmental performance and productionist policy regime	Australia, Belgium, Canada, France, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Portugal, Spain, UK, USA	Southern European	France, Greece, Italy, Portugal, Spain

Table A62: Comparisons of the models of Jahn (2014) with the models of capitalism including the social relation to the environment obtained in the article when running the analysis on the same sample.

Amable Models of capital- ism	Countries	Elie et al. Models of environ- mental regulation		Countries	This article using the Amable/Elie sample Models of capital- ism including the social relation to the environment	
		Liberal market	Australia, UK, USA		Anglo-Saxon	Australia, Canada, USA
Social-democrat	Denmark, Sweden	Finland,	Strong socialisation of environmental issues	Denmark, Austria and Switzerland	Nether- lands, Germany, Austria and Switzer- land	Northern European Austria, Denmark, Netherlands, Norway, Sweden
Continental European	Switzerland, Netherlands, Ireland, Bel- gium, Norway, Germany, France, Austria	Mixed socialized	liberal- way, Japan	Finland, Sweden, Nor- way, Japan	Continental European	Germany, Switzerland, UK
Mediterranean	Greece, Italy, Portu- gal Spain	Weak intensity of envi- ronmental regulations	Greece, Italy, Portu- gal, Spain, South Ko- rea, Ireland	Southern European	France, Greece, Italy, Portugal, Spain	
Asian	Japan, South Korea			Japan and Ireland	Japan and Ireland	

Table A63: Comparisons of the models of capitalism and the models of environmental regulation obtained by Amable (2003) and Elie et al. (2012) with the models of capitalism including the social relation to the environment obtained in the article when running the analysis on the same sample.

## 16 Modes of regulation by country and sample

Country	Full	OECD	EU	Non-EU	Amable/Élie et al.	Jahn
Australia	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	—	Pacific	Anglo-Saxon	Anglo-Saxon and Pacific
Austria	Northern-continental Euro.	Northern-continental Euro.	Northern-continental Euro.	—	Northern Euro.	Northern-continental Euro.
Belgium	Northern-continental Euro.	Northern-continental Euro.	Northern-continental Euro.	—	—	—
Brazil	Emerging Countries	—	—	Emerging Countries	—	Anglo-Saxon and Pacific
Canada	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	—	North American	—	Anglo-Saxon and Pacific
Chile	Emerging Countries	Emerging Countries	—	North-American	—	—
China	Two Giants	—	—	Two Giants	—	—
Czechia	Southern-central Euro.	Southern-central Euro.	Eastern-central Euro.	—	Northern Euro.	Northern-continent Euro.
Denmark	Northern-continental Euro.	Northern-continental Euro.	Eastern-central Euro.	—	Northern Euro.	Northern-continent Euro.
Estonia	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	Eastern-central Euro.	—	Northern Euro.	Northern-continent Euro.
Finland	Northern-continental Euro.	Northern-continental Euro.	Eastern-central Euro.	—	Southern Euro.	Southern Euro.
France	Southern-central Euro.	Southern-central Euro.	Southern-central Euro.	—	Continent Euro.	Northern-continent Euro.
Germany	Northern-continental Euro.	Northern-continental Euro.	Northern-continental Euro.	—	Southern Euro.	Southern Euro.
Greece	Southern-central Euro.	Southern-central Euro.	Southern-central Euro.	—	—	—
Hungary	Two Giants	—	—	Two Giants	—	—
India	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	Eastern-central Euro.	—	Japan and Ireland	Anglo-Saxon and Pacific
Ireland	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	Eastern-central Euro.	—	—	—
Israel	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	Eastern-central Euro.	—	Southern Euro.	Southern Euro.
Italy	Southern-central Euro.	Southern-central Euro.	Southern-central Euro.	—	Japan and Ireland	Anglo-Saxon and Pacific
Japan	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	—	—	—	—
Mexico	Emerging Countries	Emerging Countries	Northern-continent Euro.	—	Northern Euro.	Northern-continent Euro.
Netherlands	Northern-continental Euro.	Northern-continent Euro.	—	—	—	Anglo-Saxon and Pacific
New Zealand	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	—	—	—	Northern-continent Euro.
Norway	Northern-continent Euro.	Northern-continent Euro.	—	—	—	—
Poland	Emerging Countries	Poland	—	—	—	—
Portugal	Southern-central Euro.	Southern-central Euro.	Southern-central Euro.	—	Southern Euro.	Southern Euro.
Russia	Emerging Countries	—	Southern-central Euro.	—	—	—
Slovakia	Southern-central Euro.	Southern-central Euro.	Southern-central Euro.	—	—	—
Slovenia	Southern-central Euro.	Southern-central Euro.	Southern-central Euro.	—	—	—
South Africa	Emerging Countries	—	—	Emerging Countries	—	—
South Korea	Emerging Countries	Emerging Countries	Southern-central Euro.	—	Removed — outlier issue	—
Spain	Southern-central Euro.	Southern-central Euro.	Southern-central Euro.	—	Southern Euro.	Southern Euro.
Sweden	Northern-continent Euro.	Northern-continent Euro.	Northern-continent Euro.	—	Northern Euro.	Northern-continent Euro.
Switzerland	Northern-continent Euro.	Northern-continent Euro.	—	—	Continental Euro.	Northern-continent Euro.
Turkey	Emerging Countries	Anglo-Saxon and Pacific	Emerging Countries	—	—	Anglo-Saxon and Pacific
United Kingdom	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	—	Continent Euro.	Anglo-Saxon and Pacific
United States	Anglo-Saxon and Pacific	Anglo-Saxon and Pacific	—	North-American	—	Anglo-Saxon and Pacific

Table A64: Modes of regulation by country and sample.

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