The Diversity of Emerging Capitalisms in Developing Countries

Globalization, Institutional Convergence and Experimentation

Edited by Eric Rougier and François Combarnous

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Part I

**Analysing Capitalisms as
Institutional Systems: Our Approach**

1

Analysing the Capitalisms of Developing Countries: What's the Point?

Eric Rougier

1.1   The Rise of New Capitalisms

The world economy is currently undergoing a major revolution: non-OECD countries' contribution to world GDP has started to overtake that of mature industrialized countries for the first time since the late eighteenth century, when China and India were dominating world manufacturing (OECD 2010). Despite the recent slowing down of this trend, the upheaval marks a turning point for a group of fast-growing developing economies, with countries like China, India or Brazil, and smaller ones like Vietnam or Botswana, being brought to the fore by the second historical wave of globalization that was to accelerate in the 1990s. Such countries are now well on the way to accounting for an ever-increasing share of world income. Besides the well-known causes of their rapid growth, such as high rates of capital accumulation and low production costs, the

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original forms of socio-economic organization currently being developed in these emerging countries probably also explain their economic success. Surprisingly, however, these recent Asian, African and Latin American economic miracles have been bolstered by institutional configurations far removed from those prescribed by the extended Washington Consensus model (Rodrik 2008a). An apt illustration of this point is provided by China's original articulation of market-friendly incentives and decentralized statist capitalism, which simultaneously allows for high-level technological skills, low labour costs and high-performance exporting firms (Bardhan 2010; Qian 2003).

All developing economies may not be considered as fully fledged industrial or tertiary capitalisms, though. While most lower-income countries are still predominantly informal and agricultural economies, many middle-income countries are poorly diversified rentier economies exhibiting only few attributes of genuine capitalism. Still, as they all articulate such similar socio-economic sectors as agricultural and goods markets, labour and finance markets, social protection and education, these various types of socio-economic systems can be compared, whatever the levels of sophistication and formalization they have reached. Lastly, since they export commodities or manufacturing goods, host capital flows or send migrants, nearly all developing countries are integrated, albeit to varying degrees, to global capitalism. They consequently can all be analysed as emerging capitalist systems.

Although they have become ubiquitous on commodity and goods markets, in global governance arenas, as well as in business magazine columns, what we will call in this book 'emerging capitalisms' have, somewhat curiously, seldom been considered in their own right. Admittedly, experts might well have expected these capitalisms to converge towards those of the OECD mature countries since they had, after all, undergone years of standardized liberalization reforms and globalization-led inflows of Western technological and institutional influence. The assumption of a "race to the bottom" driven by the generalized trend of social protection spending retrenchment imposed by an environment of globalized competition was also put forward in the early nineties (Ohmae 1995). Yet, national systems of rules, regulations, and policies have remained significantly differentiated across industrialized and non-industrialized

economies. Consequently, both the hypotheses of a "race to the bottom" and of a convergence of national institutional systems under the harmonizing forces of globalization and technological change[1] have been challenged by the systematic divergence thesis underlying the comparative political economy approach.

Although a comprehensive comparative analysis of economic systems, including both industrialized and emerging countries, would seem useful for understanding current globalization trends, such analysis has generally been restricted to mature developed economies. The convergence thesis has been essentially challenged by a resurgence of comparative analyses of OECD countries' capitalist systems with respect to such dimensions as social protection (Esping-Andersen 1990), and market coordination (Hall and Soskice 2001), as well as education and finance (Amable 2003). There have been far fewer typological or analytical propositions concerning developing countries, which are undoubtedly, at least for the middle income ones, involved in capitalist modes of production and distribution. Two significant exceptions to this general neglect are China and, to a lesser extent, India. Whereas China's apparently open-ended rise has engendered an ever-increasing number of analyses by both scholars and experts involved in development and globalization issues, this has not been the case for other developing countries.[2] Although some emerging national capitalisms in Africa or Asia, like Botswana or Vietnam, are increasingly being signalled as models by international financial institutions or private advisors, the majority of the developing economies have never, or seldom, been studied as sui generis capitalist systems. It is, therefore, somewhat puzzling to realize how much emerging capitalisms' originality and heterogeneity went unnoticed for so long before

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[1] The most quoted reference to the institutional convergence hypothesis is certainly Fukuyama (1992). As for economists, Benabou (2006) has provided a formal demonstration of this convergence mechanism. Acemoglu et al. (2012) have, however, recently shown that the persistence of different systems of capitalism is explained by the complementarities in terms of specialization and demand.

[2] For a simple request using China and Capitalism as keywords, a well-known online book reseller gave no fewer than 1243 references classified under the heading "Politics and Social Sciences", and 593 under the "Economics" heading. A similar request gave 204 references for India under the heading "Economics", 88 for Brazil, and only two for one of the most widely acknowledged African models of emerging capitalism, Botswana. It should be noted that whereas Japan, the oldest Asian "former" emerging capitalism, has 811 references, Korea has only 135.

the present book. Very little academic research has been explicitly geared towards identifying emerging models of capitalism and then comparing them to the mature ones.[3]

Analysing developing countries' capitalisms as internally consistent systems of rules governing markets and sectors is, nevertheless, as legitimate as it is in the case of developed economies. An approach of capitalisms based on the observation and comparison of the systems of institutions and regulations underlying the working of markets and organizations in each national economy, whatever its level of economic development, would leave the institutional convergence issue *undetermined a priori.* Systems of institutions govern markets and economic sectors through the incentives and constraints they impose to economic agents, with these institutions being the joint product of historical initial conditions and critical junctures, cultural preferences and values and sociopolitical conflict (North 1990). Consequently, we can anticipate that different historical and political trajectories will reflect in clearly differentiated ways of organizing markets, state and businesses across countries that need to be identified and compared. This is exactly what we aim to do in the present book.

The comparative approach of institutional systems we have chosen to adopt in this book precisely investigates the diversity of emerging forms of capitalism by looking at the systems of sectoral modes of regulations to be observed across a broad range of developing countries. Our analysis finally ushers in a wide range of questions. How can we first assess institutional systems empirically, and then compare them? Is there an institutional pattern common to all emerging and developing countries? If not, do individual institutional configurations cluster into a limited number of models? What are the main long-term determinants of these models, and what specific patterns of socio-economic outcome are associated with them? What paths of institutional formalization are open to countries trying to escape the poverty trap? All these questions are of deep interest for all of us who try to anticipate what the world economy will

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[3] Similarly, the question has only received scant attention from Development Studies, with the political economies of emerging and developing countries simply being treated as either more or less identical, or else being considered as too diverse and sui generis to be subsumed into models. Those rare attempts are surveyed in Chap. 2.

look like within the next two decades. Addressing them is also crucial for the social scientists (economists, political scientists, sociologists) investigating how economies, polities and societies interplay and self-organize in a globalized world. This book is our contribution towards this goal.

1.2   Varieties of Mature Capitalisms: Working Out the Elements of a System-based Method

National variations of capitalism have been examined by comparative capitalism (CC) literature throughout the last two decades, essentially by implementing a systematic comparative approach to mature economies' institutional systems.[4] National capitalist economies are generally characterized by distinct institutional configurations, sets of complementary institutions generating a particular systemic "logic" of economic action. Five main sectors, and the institutions regulating them, are usually analysed: (1) *industrial and labour relations*, either more or less individualized or else collectively negotiated, with varying rigid hiring and firing regulations; (2) *corporate governance and finance*, generally pitting stock-market reliance against dependency on banks; (3) *product market regulation and inter-firm relations*, including firm strategies, trade and competition policies and the degree and quality of regulation; (4) *training and education systems*: opposing general knowledge and specific skills training; and (5) *the level and type of social protection*, generally opposing generous socio-democratic and mixed public–private schemes.[5] Models

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[4] Hall and Soskice (2001) is probably the most cited reference inside and outside this strand of literature. For an exhaustive survey, see Jackson and Deeg (2006).

[5] There is no such thing as a definitive list of the institutional domains to be found in the literature. For example, the status that must be given to the state's direct intervention remains subject to debate. By the same token, there is uncertainty as regards the optimal degree of disaggregation within each "domain" (Jackson and Deeg 2006). Domains like labour market and education are, for example, sometimes aggregated into one single institutional dimension. Furthermore, typologies of capitalism generally consist in "typologies of typologies", namely assemblages of institutional domain typologies (Jackson and Deeg 2006). Had there been an agreement on which domains to include, typologies that are used to describe governance within those domains would still be so different that they would generate different national typologies.

of capitalism are then depicted as simultaneously singular and consistent articulations of these sectoral regulations. It is generally inferred from the ensuing capitalism models that different institutional arrangements have distinct strengths and weaknesses for different kinds of economic activity. Consequently, CC proposes an explanation of performance heterogeneity based on institutional diversity, and not, as was contended by international organizations like the World Bank until the mid-2000s, based on the simple distance from an institutional frontier incarnated by the liberalized market economic model.

Obviously, emerging and developing countries' institutional systems do not fit neatly into the fully complementary institutional configurations that have been honed for mature industrialized countries. Nor do they conform to the institutional model inspired by the Washington Consensus, with markets and organizations being supported by a minimal set of regulations and a minimal perimeter of state intervention in the economy. That is why some CC scholars have come to consider that the capitalisms emerging in Eastern Europe and Latin America, as well as those in China and India, should be grouped together as an "emerging" capitalism ideal-type (Hancké et al. 2007: 4). Still, these isolated attempts to typify a variety of capitalism for all developing countries tend to consider only a limited number of regions and generally fail to address capitalism heterogeneity within each region. Moreover, these studies are generally based on a priori ideal-types of mature OECD capitalisms, subsequently used as yardsticks for comparing emerging capitalism models, with these being merely catalogued as deviant or intermediate avatars of OECD well-identified models. Lastly, by predefining their ideal-types as internally consistent complementary institutional configurations, CC scholars seldom discuss the possibility of hybrid systems having their own form of efficiency, especially as regards countries whose capitalism is emerging from "archaic" forms of relation-based governance mechanisms.

Comparative capitalism has not, in fact, really attempted to analyse per se, and for a comprehensive sample of countries and regions, the institutional configurations that support the formation of emerging capitalisms in Asia, Africa and Latin America. The exclusive focus of the CC literature on OECD countries fundamentally stems from the common belief that capitalist systems of emerging countries are not yet fully stabilized

institutional systems, with their transitional configurations being destined to converge ultimately towards one of the well-identified mature forms of capitalism. These emerging capitalisms might, accordingly, not attract scientific interest since they would be envisaged as just shifting from one transitory form to the next more formalized ones. However, this reluctance to consider developing country's institutional systems in their own right neglects, in fact, two crucial and related points.

First, in a globalized economy, all capitalist systems undergo constant pressure for change. Two rival views have structured the literature. The first view sees globalization as the main driver of a race to the bottom in what concerns social regulations that may, ultimately, prompt a convergence of institutional systems towards the most globalization-friendly model. According to Freeman (2000) and Benabou (2006), globalization and information technologies have strengthened the single-peak view of the world. Labour market flexibility, or a modest welfare state, can help advanced economies attain higher competitiveness in an open world (Benabou 2006). But globalization may also drive developing countries to adopt lower labour standards and levels of social protection, with social dumping exerting, in turn, unfavourable effects on socioeconomic development (Rodrik 1997; Rudra 2007). So, similar trends seem to affect emerging and advanced capitalisms, since globalization and technological diffusion expose all capitalist systems to similar pressure.[6] Yet, since they will not cope with these pressures by adopting similar economic and social regulations, more attention should be paid to investigating how developed and developing economies simultaneously and strategically adapt to globalization, knowing that the latter may, in turn, be strongly endogenous to these adaptation choices.

Second, most of these emerging capitalisms have reaped significant benefits from globalization, with their firms and exports now increasingly

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[6] The thesis that capitalist systems are converging towards a minimal form of globalization-compatible welfare model has also been criticized by Rudra (2007, 2008) and Acemoglu et al. (2012) who both show, although they use radically different approaches, that diversity of national socio-economic models can be maintained and even strengthened by globalization because the different capitalisms are actually complementary. Equally, for Hall and Soskice (2001), institutional diversity can be maintained since each singular variety of capitalism embodies specific institutional comparative advantages, with these comparative advantages being, in turn, reinforced by the intensification of trade.

challenging the more mature industrialized economies. They have also succeeded in significantly reducing poverty and in shifting their reform agenda towards social inclusiveness, but in their own way. Despite the globalization-led pressure for institutional convergence, with the concomitant risk of a political backlash, both the diversity of institutional models and integration within the world economy have proven to be remarkably compatible across emerging capitalisms. The contrast with mature capitalisms is so striking that an influential periodical like *The Economist* recently brought out a special issue, entitled "The visible hand", which deals with these new forms of non-liberal state-coordinated capitalism that are currently emerging in developing economies. Not only are they in competition with the mature economies but, it is argued, their different models of state support of industrialization and growth could, even more surprisingly, prove a possible source of inspiration for those mature capitalisms, which seem to be durably stuck into a structural crisis mode (*The Economist* 2012). This affirmation comes over as a condemnation of the all too frequent quasi-evolutionist vision of emerging capitalisms as being merely unstable transitory forms.

Although development economics and comparative capitalism scholars would be right to put this topic on the agenda, the large, fundamental differences that exist between regional and national forms of emerging capitalisms still need to be fully addressed.[7] As explained in Sections 1.3 and 1.4, this necessitates adopting a multidimensional vision that simultaneously builds on existing works dealing with the role of institutions in economic development and the variety of capitalist economic systems, whilst going beyond their shortfalls by developing an appropriate perspective and method. It should notably be borne in mind that these differences have to be assessed and understood in connection with the specific context of developing countries, as will be documented in Section 1.5.

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[7] A similar point is made by Becker (2009: 61).

1.3 Analysing Developing Countries' Capitalist Systems through the Lens of Institutional Clusters

According to Acemoglu and Robinson (2012: 68), explaining economic development gaps between nations requires understanding why "some societies are organized in socially inefficient ways". Since North's (1990) path-breaking book, economists generally consider that socio-economic organization is more efficient when transactions and conflicts across individuals and groups of individuals are better governed. At the scale of the nation, governance is defined as (i) the set of goals collectively desired and (ii) the set of processes and instruments by which a given group chooses to manage its affairs towards these goals (Baland et al. 2010). Among these instruments, institutions, commonly defined by economists as humanly devised constraints on individual decisions, constitute the building blocks of political, economic and social governance by framing social, economic and political interaction. Taken together, all these institutions carry governance to the targeted population by enabling individuals to reach their individual and collective goals through any sort of transactions as well as through the formation of organizations.

Neo-institutionalist scholars have regularly pointed out the systemic nature of institutional governance. A given institution's capacity to provide a convenient set-up to individuals and organizations fundamentally relies on the pattern of its articulation to other complementary institutions. In the words of North (1991: 109):

> *The institutional matrix (…) consists of an interdependent web of institutions and consequent political and economic organizations that are characterized by massive increasing returns. That is, the organizations owe their existence to the opportunities provided by the institutional framework. Network externalities arise because of the initial setup costs, the learning effects described above, coordination effects via contracts with other organizations, and adaptive expectations arising from the prevalence of contracting based on the existing institutions.*

Surprisingly, although strongly influenced by the aforementioned North's statement, neo-institutionalists have tended to disregard the systemic nature of institutions in order to explain economic development. From the mid-1990s onwards, a growing number of empirical papers started to point out the impact of current and past institutions on economic development.[8] These papers were generally based on a simple assumption: institutional differences across countries help explain the persistence of large income gaps, because different institutions generate different economic incentives for agents (North 1990; Djankov et al. 2003). Put simply, badly or weakly enforced institutions and legal, economic and political governance explain African countries' persistent poverty, while strongly enforced and highly protective and inclusive institutions create the conditions for long-term social and economic development in affluent countries. Empirical studies supporting the hypothesis that institutions are crucial determinants of economic development differences have grown apace since the turn of the 1990s. Although addressing more specialized types of institutions, such as those regulating finance, competition or labour market, these studies still predominantly mobilized one-dimensional approaches, with their empirical analyses being mainly motivated by efficiency issues; namely, measuring the degree of functional attainment of various degrees of regulation. For example, they merely investigated the effect of an increased finance deregulation on financial development (La Porta et al. 1997; Beck et al. 2003) or of more flexible labour regulations on labour market efficiency (Botero et al. 2005). Consequently, they did not prove of great help in analysing the economic systems of sectoral institutions. Only very recently have several papers attempted to identify more explicitly the clusters of institutions that matter most for economic development (Roland and Jellema 2011; Besley and Persson 2011). But their approach does not really address the full set of complementarity characterizing institutional systems, as exposed in Chap. 2.[9]

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[8] Among the most frequently quoted papers are Knack and Keefer (1995), Mauro (1995), or Acemoglu et al. (2001).

[9] Pryor (2008, 2011) constitutes an important exception. His works are further discussed in Chap. 3.

In fact, analysing national capitalisms' institutional governance would require investigating the extent to which the national system of institutions effectively reaches the collectively desired goals. According to Baland et al. (2010), however, governance is too vague a rhetoric and it may be intrinsically impossible to unbundle it by unambiguously identifying its subcomponents and relating them to the institutions that were initially designed to supposedly reach these sub-goals. For this reason, the present book will look at systems of institutions, by investigating their regularities and singularities, their internal consistency or inconsistency, without systematically relating these institutional systems to the implicit goals they may target. Going back to social goals would require analysing political systems and trajectories for each country, which is out of reach in the context of the present book. The social goals possibly underlying each one of the models identified are nevertheless discussed in connection to the institutional hierarchy assumption in Chap. 12. In addition, we try to trace back institutional trajectories to the historical sequence of social goals underlying them for the specific case of six emerging countries (Chap. 13).

Although we will assess it through the partial lens of institutional systems, the term "governance" will nonetheless be used, throughout the book, as a summary term for the main goals of institutions and organizations; namely, reducing transaction costs, supporting cooperation and coordination and mitigating conflicts imposed by economic interactions in the different sectors of the capitalist system. Governance is therefore conceived, in the first place, as the outcome of sets of specialized institutions and organizations conditioning and influencing individual and collective behaviour in each sector of the economy. Consequently, governance of the whole capitalist system is the articulation of its different sectoral modes of governance, with this articulation proving fully consistent for some countries while being, on the contrary, deeply dysfunctional for others, as will be explored in the following chapters.

In addition, we believe that the term governance is particularly convenient for our purpose since it encapsulates both public and private sources of sectoral regulation and their complementary impact on agents. As an illustration, the social protection sector is governed by a mixed set of public rules and private organizations, complying with these rules,

in many countries. This is also true of environmental regulation, which generally articulates publicly enforced rules and non-governmental organizations' monitoring.

Various patterns of institutions and organizations' articulation supporting the working of the markets or sectors constitutive of the capitalist economies[10] have been observed in our sample of countries. Each one of them will be considered, throughout the book, as a "sectoral governance model" and will be labelled in consistence with its general logic. For the sake of convenience, these labels will be reported in italics without capitalized initials. Ultimately, the significant variety of combinations of "sectoral governance models" that we will observe at country-level will be reduced to six original and distinct "models of capitalism", as will be explained in the next section. In order to clearly differentiate capitalism models from sectoral governance models, the former's label will be reported throughout the book in italics with capitalized initials.

1.4   From Institutional Clusters to the 2+4 Models of Capitalism

The book is mainly about the institutional clusters underlying capitalist market economies, especially in developing and emerging countries. What are these clusters? How can we identify and then study them empirically? Are there common institutional clustering patterns across countries? If so, what are their main long-term determinants? Are there specific economic outcome patterns associated with these clusters? Can different forms of institutional complementarity be observed? The present book will identify and compare capitalisms across developing countries by investigating and comparing the systems of institutions governing their constitutive markets and sectors. Accordingly, we have deliberately chosen to question these so-called emerging forms of capitalism without seeking, a priori, to define them by their distance from the more stabilized OECD models of capitalisms. We have considered, conversely, that emerging forms of

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[10] These sectors and markets are goods and labour markets, finance, social protection, education, environment or agriculture.

capitalism ought to be examined in terms of their own underlying pattern of socioeconomic organization, that is the specific mode of articulation of the institutions governing transactions between individuals and organizations in such different sectors as agriculture, production and trade, labour relations, finance, education or social protection. These specific modes of institutional articulation are first characterized and then confronted with a wide array of socioeconomic determinants and outcomes. Quite predictably, these original models of emerging capitalisms that we uncover do not look like their European or American counterparts. Most of them are still dualist systems with only a narrow capitalist sector employing formal labor and producing for the market. What is very surprising, however, is that they are remarkably heterogeneous: what is true for Shanghai is not true for Johannesburg or Rio. This book shows, in fact, that Indian and Brazilian emerging capitalisms differ in much the same way as Chinese and European or North American capitalisms.

Our method of institutional systems comparative analysis is original since it is both quantitative and qualitative and is two-tiered. Using a comprehensive sample of 140 developing and developed countries, the institutional arrangements of the various sectors constitutive of the whole socioeconomic system (labour, competition, education, agriculture, environment, finance and social protection) have first been systematically investigated over the 2006–2010 period, with this first step being reported in the seven chapters in Part II. Each sector (labour, competition, finance, social protection, education and training, agriculture and environment) is separately analysed. The choice of variables used to analyse the institutional governance of the sector is initially justified as regards the literature. The countries are then clustered with respect to their similarities in terms of the institutional variables governing the sector. The resulting country clusters are finally characterized and labelled as distinctive institutional governance types for that sector. As this procedure was replicated for all seven sectors, a corresponding set of seven sectoral governance types, one per sector, was ascribed to each country to depict its socioeconomic system. We call this set the country's vector of sectoral governance models/types or the country's institutional configuration.

It is only in a second step, reported Part III of this book, that these are used to reconstitute the institutional systems of our comprehensive set of countries. These country-specific vectors of sectoral governance types

were thus clustered, with each cluster grouping the countries that are most similar in terms of their vector of sectoral governance types. Each group of countries thus identified constitutes a distinctive capitalist system model. The diversity of the national institutional configurations highlighted at country-level, as described by the vectors of sectoral governance types, has thus been reduced until 2+4 varieties of world capitalisms are clearly and robustly identified. The first two models support the existing literature concerning OECD capitalist models, since we find that the two *Liberal Market Economy* (*LME*) and *Coordinated Market Economy* (*CME*) ideal-types are generated by our data analysis, and those two models also include advanced Asian, Latin American and European economies that are often labelled as emerging: Korea, which has progressively developed an economic system close to that of *LME*, and Argentina and the ex-socialist CEECs that went on to reform their institutions in line with the Washington Consensus or the European Union socioeconomic organization. Incorporating environmental regulations entails significant and new patterns of differentiation between the mature and emerging capitalisms. For the *CME* and *LME* clusters, which mainly include OECD countries, the environmental regulations are very marked.

The four models that remain are specific to developing and emerging economies. Strikingly, no regional model clearly emerges for either Latin America or Asia. Low-income countries, mostly to be found in Africa do, however, share common patterns as regards their institutions and regulations. Since they have a dominant institutional configuration, poor countries tend to cluster into the *Informal* (*Weak State*) socioeconomic model, a model which remains remarkably stable throughout the different stages of clusterization. As for middle income and emerging market economies, we find three distinctive types of economic systems. The first model, the *Globalization-Friendly* one, includes small and open countries that owe their economic performance to a deregulated outward-oriented private firm-type of capitalism. This model fits remarkably well with the High Performing Asian Economies (World Bank 1993). The second, *Statist* (*Resource Dependent*) model, includes bigger countries that are heavily regulated and in which state intervention in the economy is high, via state-owned firms, strong degrees of red tape and market regulation and high levels of state transfers to consumers and producers. Whereas *Statist* (*Resource Dependent*) countries are aware of the need for biodiversity and

environmental preservation, this is less so in the case of *Globalization-Friendly* countries. These two groups have, however, developed a certain number of minimal regulations, whereas *Informal* (*Weak State*) low-income countries have developed very few.

A strong and additional originality of our work lies in the cluster of countries that have experimented singular institutional configurations which predominantly combine original and singular sector-related institutional types (*Idiosyncratic*), or else mix well-identified sector-related institutional types in a deeply original and singular way (*Hybrid*). It should be noticed that, within the *Hybrid* sub-component, some countries have deliberately chosen to adopt such a hybrid or disarticulated system. Others, however, have engaged in the difficult process of transition from a predominantly informal system to a more formal one. This has led to the articulation of institutions and regulations that should not have been associated, either because they are not complementary, or because they do not display homogeneous degrees of "formalization".[11] Although the transitory nature of institutional systems in developing economies is one of the challenges we had to address in the present book, other features of developing countries had to be accounted for and dealt with by our methodology as explained in the next section.

1.5   What Is So Special about (Analysing) Developing Countries' Capitalisms and How We Deal with That?

Comparative Capitalism represents capitalist systems as more or less stable equilibria simultaneously determined by domestic and external conditions. As soon as those conditions change, institutional systems have to adapt in order to remain functional under the new set of internal and external constraints. Any institutional system therefore generates

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[11] This is why Chap. 13 proposes a more fine-grained analysis of those different Hybrid-Idiosyncratic institutional trajectories, essentially by developing historical comparative analyses for Brazil, the Philippines, Cote d'Ivoire and Colombia in order to decipher those different patterns. Focus is also placed on the largest emerging countries: Brazil, China, India and Russia.

obvious incentives towards the preservation of its structural specificities because these specificities feed its comparative advantages, thereby binding actors to the system (Hall and Soskice 2001). Accordingly, all national institutional systems, including those of currently developing countries, were crafted under a wide spectrum of external and domestic conditions. Among the various sources of influence commonly experienced by most of these countries, two specific and complementary ones should be highlighted: the pressure of rapid economic change on institutions, and the specificity of institutional change patterns, characterized both by huge external influence and the persistence of informal or inefficient institutions.

As argued by the modernization school, rapid economic change puts continuous pressure on socioeconomic organizations and rules, forcing them to constantly adapt under path dependency constraints (Lipset 1959, Przeworski et al. 1996). Since they require changes in productive organizations and of socioeconomic incentives, elements of structural transformation such as the shift from traditional or agricultural to modern or manufacturing industries, growing urbanization or the rise in population educational levels generally go along with institutional change. Institutional adaptation must match the renewed needs for transaction cost reduction, impersonal exchange, socioeconomic empowerment, and political accountability that come with economic development. Similarly, income distribution change, such as the rise of middle classes, can trigger change in the balance of sociopolitical forces for countries still facing the high stakes of both poverty reduction and democratic transition or consolidation.

Almost all developing economies markedly face the challenge of a transition to formalized systems of institutions, requiring agents to move from a relation-based system of rules to a formal one (North 1990; Dixit 2004). Such a formal system usually relies on centrally enforced rules (Pryor 2010; North et al. 2008), with the state having the necessary fiscal and legal capacity to impose the rule of law (Besley and Persson 2011). During the transition process, however, countries can become entangled in contradictory patterns. In the first phase of economic development, economic activities on a small scale can be backed up exclusively by relation-based norms and enforcement mechanisms. Since private modes

of economic and social governance tend to self-enforce, no centralized state governance is needed. In such a setting, certain forms of corruption may well favour economic efficiency, provided that corrupt organizations avoid excessive predation. Dixit (2004: 152), however, argues that, at some intermediary levels of income, the relation-based information network may weaken, to the point where contract enforcement is no longer sustained, essentially because the cost of setting up centralized state-based enforcement mechanisms remains excessive as regards the current scale of activities. Insofar as the weak efficiency of poorly-qualified civil servants reduces the credibility of the centralized enforcement system, the survival of traditional modes of governance can deprive the new system of the experience it needs to gain in efficiency and credibility.

It could be argued, accordingly, that analysing only formally measurable institutions does not fully address the complexity of developing countries' mechanisms of coordination. As an illustration, Dasgupta (2005) reports that, in countries where the law does not function well because of high levels of corruption or the poor degree of property rights and contract law enforcement, communitarian relationships help keep people alive and allow them to trade and invest. In poor countries where a formal legal system is lacking or is insufficiently enforced, informal trust, with or without third-party enforcement, may be the only option (Heller 2009). As economic development spills over, the need for impersonal market mechanisms increases but, as long as the communitarian institutions arising from interpersonal networks survive, they can crowd out markets and hinder any progress towards a deeper enforcement of market-supporting formal institutions. Although a combination of traditional and modern systems can lead to excessive transaction costs, loss of efficiency and an increase in opportunistic behaviour (Dixit 2004; Rodrik 2008b), most developing countries have found it difficult to introduce and enforce formal bodies of rules, mostly because the persistence of informal institutions based on kinship or networks may eventually trap poor economies into a low-level equilibrium (Akerlof 1976; Hoff and Sen 2006). Hence, measuring institutions for mainly informal economic systems is tantamount to according a value (generally subjective) to formal institutions whereas, in fact, informal governance mechanisms are at work. Accordingly, there is a significant risk that the level of

rule enforcement may be undervalued, because the expert only evaluates the degree of enforcement of formal rules, and not the possibly efficient functioning of informal mechanisms of governance.

The survival of inefficient or sub-optimal institutions is therefore a critical feature of developing countries. Developing countries may be locked into inefficient institutions or institutional configurations because there are fixed initial setup costs, with increasing returns being attached to the adoption of a given institutional architecture (North 1990, 2005). The risk of inefficient institutions surviving is further worsened by political or economic losers' resistance to change (Acemoglu and Robinson 2000, 2012). In the poorest economies, institutional change is actually hindered by structural factors of inertia limiting the potential for collective action of a broad share of the population (Olson 1965; Bardhan 2005). Among these factors, agriculture predominance, high dependence on natural resources, high inequality in income and assets, or non-democratic and non-participative institutions have been pointed out by recent literature. Endogenous institutional formalization can thus be blocked in poor developing economies, where the scope of economic activity is not sufficient to cover the costs of enforcement. Simply trying to transplant Western norms of centralized state governance to such countries can, however, prove ineffective, as explained below.

Drivers of institutional change may also be related to changes external to the developing economy. First, few developing countries have avoided, at some point in their history, the need to modernize their legal systems by a process of transplantation (Berkowitz et al. 2003). Various legal systems have been partially transplanted in developing countries, either by colonizers (Shleifer et al. 2008; Acemoglu and Robinson 2012) or, after independence, via international experts' soft power (Dezalay and Garth 2002), or even by military influence (Berger et al. 2012). Likewise, during the last two decades, many developing countries have been constrained, either by trade agreements or structural adjustment, to open up and liberalize their economies very suddenly, thereby imposing competitive and technological pressure on their agents, with subsequent distributive effects. Even though common law transplants have been found to be more propitious to income growth and financial development (Shleifer et al. 2008), transplant conditions tend, in fact, to be more important for

economic development than the particular rule being imported. More specifically, rule-based governance is shown to be more effective when the receiving country has developed legal systems internally, or has been able to graft the transplanted law onto its indigenous legal system (Berkowitz et al. 2003). In most developing economies, however, socioeconomic systems are still governed by simultaneously operating conflicting systems of rules and enforcement, with each system bringing its own specific benefits and costs. Certain dimensions of the systems are close to the institutional frontier, whereas others stand very far from best practice standards.

Finally, globalization-related trends have also exerted a considerable influence on domestic institutional systems. On the one hand, integration to global value chains of financial markets impose that developing countries simultaneously adapt their policies and regulations to international standards or best practices. But, on the other hand, the growing competition between developing countries to attract foreign direct investment (FDI) or increase their share of global markets intensifies the need to further differentiate institutional systems. Institutional differentiation can take various forms ranging from the legal organization of social dumping to the state support of skill upgrading. Of course, domestic and external sources of institutional change cumulate their effect. The Chinese politico-economic equilibrium is, for example, currently undergoing severe pressure for reforms, as a growing middle class rapidly emerges and the globalized drivers of growth fade away (Xu 2011; Bardhan 2010). The institutional forms resulting from the sum of internal and external pressures are consequently condemned to be radically different from those observed for European countries, when they emerged several decades ago or, even, from more recent East Asian catching-up successes.

Our analytical framework has been specifically designed to address the above-mentioned traits of developing countries' institutional features.

First, insofar as there were no widely accepted models depicting what capitalism would actually look like in these rapidly changing countries, it became essential to reject the usual top-down CC approach, and to replace it with a bottom-up one. The top-down approach first defines models of capitalism as ideal-types, and then tests these models against countries that are generally considered to be their counterparts. Our bottom-up approach is, however, essentially inductive, since we first observe

the specialized institutions governing transactions in the various sectors of the economic system, and then go on to examine how they tend to regularly coalesce into institutional configurations at system-level. We also observe the dynamic paths of institutional change leading countries, whose initial socioeconomic characteristics were fairly close, to eventually adopt radically different models of capitalism.

Second, the theory of institutional complementarities, at the core of the CC analyses of OECD capitalisms, has been adapted to fit the reality of developing countries. Since in developing countries, observed institutional systems are the result of the variety of conditioning factors and influences described above, they can't be considered as fully fledged systems, with their stability being bolstered by a form of internal consistency provided by complementarities. On the one hand, some institutional systems present forms of complementarities or network externalities incidentally emerging, although they were not initially expected to raise efficiency. We therefore introduce the notion of de facto complementarities to allow for possible experimentation-driven efficiency; namely, forms of joint efficiency that may be generated by apparently incompatible institutions. The mix of market-based and state-based modes of economic coordination implemented by China during the 1990s and early 2000s is a good illustration of this de facto complementarity. Conversely, we call *de jure* complementarities the type of systemic efficiency that can be expected from the implementation of a wholesale set of sectoral institutions supposed to be internally consistent because they are driven by a common principle of organization. On other hand, developing countries show forms of negative complementarities; namely, negative network externalities, engendered by sets of complementary institutions whose cumulative effect traps the economy into a low equilibrium. In that case we talk of positive complementarities, by opposition with the positive complementarities whose main effect is to spur economic development.

Third, the specificity of our approach is that it enables a set of idiosyncratic forms of institutional governance to be identified at sector level. We show that these idiosyncratic forms finally tend to cluster at the second stage of our analysis, coordinating at institutional system level, thereby forming the so-called *Idiosyncratic* model of Capitalism. Other countries have articulated types of institutional governance that are not currently

articulated in the sample of countries. In that case, they have developed the so-called *Hybrid* form of capitalism.

Fourth, the sectors used to describe institutional systems have been extended to incorporate agricultural institutions and environmental regulation. Whereas some developing countries, including the BRICS,[12] are complex systems combining large agricultural sectors and fast-growing industrial activities, most of them still rely heavily on agricultural and mining resources. It might be argued that a minimum level of production per capita is required to allow capitalism's capital-intensive methods to ensure a significant production surplus. Pryor (2011) points out that "*although highly commercialized agricultural societies might conceivably achieve such a surplus, in the vast majority of cases a significant volume of tradable goods implies a level of per capita production and industrialization not possible with handicraft technology*". Yet, assessing the minimum level of per capita production required for such a tradable surplus raises considerable difficulties, notably because measuring informal production in low-income countries remains a puzzle for national account statisticians. This is why we have chosen not to define such a threshold, but have explicitly introduced agriculture as a sectoral dimension of emerging capitalist systems. As for natural resources, some developing countries have recently embarked upon long-term conservation schemes to protect their biodiversity. Equally, some of the biggest emerging nations, like China or Brazil, which are becoming increasingly aware of the dramatic environmental damage triggered by rapid trends of urbanization and industrialization, are trying to integrate this sector into their own regulation system. Since these two sectors do have a large influence on living conditions and, hence, on prevailing sociopolitical equilibria in most developing countries, introducing them as a full component in a comparative analysis of developing countries' institutional systems certainly makes sense.

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[12] BRICS is the acronym for Brazil, Russia, India, China and South Africa.

1.6   What This Book Is and What It Is Not

It would now seem opportune to situate our work and its results in relation to other recent works with which it shares both obvious connections as well as crucial differences.

The approach we have adopted is extremely comprehensive, since the original methodology developed here is aimed at identifying the types of socioeconomic governance for seven specific sectors of the market capitalist system, using a broad sample of 140 less developed, emerging and developed countries. Using institutional data for the period 2006–2010, we therefore compare the institutional configurations underlying capitalist systems of a wide sample of developed and developing countries, jointly analysing welfare state institutions and those concerning the finance, production, agriculture, environment and education sectors. Our book therefore helps improve our understanding of institutional diversity by comparing clusters of institutions for a very broad spectrum of countries, thereby extending the existing body of comparative analysis of capitalist systems to a range of countries that have generally been excluded from existing typologies.

Conceptually, our approach is fairly close to that of CC, but we explicitly address the emerging capitalist systems that can be observed among non-OECD countries. Like CC, our methodological approach assumes the possibility that institutional complementarities between distinct sectors of the economy can lead to multiple combinations of institutional variables and, hence, to different types of capitalism. However, unlike CC, we have chosen not to focus explicitly on the issues of business governance and social relations but, instead, to examine seven complementary institutional dimensions covering agriculture, competition, education, the environment, finance, labour, and social protection. Another, really crucial difference, with CC is that we do not start from *a priori* models defined by *a priori* clusters of institutions. Instead, our approach generates cross-checked clusters of institutions that tend to be either frequently or idiosyncratically observed across national economic systems.

Throughout the book, strong emphasis has notably been placed on emerging countries, because they exhibit original, often innovative,

ways of organizing their economic systems. Our empirical contribution to the analysis of emerging market economies shows that the variety of their institutional systems paves the way for adopting different strategies to escape the poverty trap. However, the sector-based and diversity-conscious analysis that we have adopted here enables us to propose a variety of institutional modernization paths, including very experimental and hybrid approaches.

It should not be forgotten that, as our main goal is to assess the multidimensionality of institutional systems, we have had to adopt a nonstandard approach. We have chosen to eschew the dominant cross-country econometric approach, based as it is on a one-dimensional assessment of institutional attainments, favouring a more multidimensional approach focused on the institutional clusters to be found across a wide range of economic systems. Although research on the causal links between institutions and economic development has grown apace and furnished significant results, it does not provide us with a germane analytical framework with which to assess the diversity of economic systems. In Part III of the book, the determinants and economic performance associated with these economic systems are also described, as well as their main institutional complementarities. The particular institutional trajectory that led to a number of important emerging countries choosing to adopt one specific model of capitalism rather than another is also analysed there.

Our empirical work is nevertheless informed by a series of analytical premises inspired by standard institutionalist literature. First, as economic actions are embedded in the whole social domain, they require coordination or governance by formal and informal institutions (Granovetter 1985; DiMaggio and Powell 1991). Our work focuses its attention on formal institutions and aggregate mechanisms of governance, with social networks or associations being considered as only marginal. This is due both to the low availability of comparable microdata about informal mechanisms of governance, and to the expansion of the economic and social prerogatives of the state as economies develop. One important formal strand of the literature on institutions has developed a game theoretical framework of analysis of micro-institutions and conventions[13] but its

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[13] See Aoki (2001) for an overview.

congruence with our work is limited. Equally, microeconomic analysis of the institutional design of agrarian or trade contracts is not useful for our purpose because it is unable to distinguish different macro socio-economic models.[14] Land rights and contracts are nevertheless considered, in Chap. 9, as crucial institutional dimensions of the agricultural domain.

Obviously, varieties of capitalism in developing countries could have been analysed through a variety of alternative theories. Institutions have been analysed through various angles and approaches that are very different from the neo-institutionalist one used in this book. Heterodox approaches, such as the American "old institutionalism", or evolutionary approaches have contributed to explain the nature of institutions and of institutional change. Old institutionalism focused its attention on transactions, and on the social context of these transactions, insisting that they should be paid more attention by economists. Also our approach is indebted to old institutionalism; we are interested in systems of institutions, and how they persist or not, more than by the very nature of institutions. Likewise, evolutionary institutionalism has certainly contributed to the field, notably by elaborating a non-deterministic framework of the emergence, persistence and change of institutions. Institutions emerge and experience mutations through random innovations as unintended consequences of individual and collective actions. One crucial assumption of the evolutionary institutionalism is that countries facing very different circumstances may converge toward a common set of social arrangements that are favoured, or selected, by a similar evolutionary process (Parsons 1964; Bowles 2004). Our work does not test the existence of such evolutionary universals, for the mere reason that selection and mutation processes take place over the long run. Moreover, our work assumes that institutions might differ with different circumstances, political and historical, so that institutional trajectories lead to very different models or configurations across countries and regions. We therefore had to adopt a neo-institutionalist framework, which is more consistent with this diversity assumption, provided that the analyst gets rid of the

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[14] On this specific domain of the institutionalist literature, see Bardhan (2005), Fafchamps (2004) or Pande and Udry (2006).

functionalist assumption that there is only one best institutional shape in order to meet any given social need, as we have done in this book.

The Marxian approach would insist on the accumulation regime as the critical determinant of the shape of institutions, albeit without being able to envisage a variety of institutional dynamics. In this Marxian set-up, diversity only refers to the stage of accumulation on a single scale shared by all capitalist economies. Accordingly, developing countries' capitalisms may not be analysed by this approach since they should not differ significantly from the paradigmatic model. Moreover, their description of capitalism is based on a theory of the fatal crisis and collapse of capitalist systems that was contradicted by the twentieth-century historical experience. Also analysing crises, the French Regulation Theory first described how institutional forms of capitalism could change over time in industrialized economies in order to adapt to new circumstances. Then, by *a priori* identifying four variations of industrialized capitalism, the Regulation school has come up to analyse the diversity of institutional architectures that can be observed across industrialized countries (Boyer and Saillard 2002). Their framework of industrialized capitalisms comparison is based on sectoral dimensions (education and training, labour market institutions, finance and competition), analogous to those used by the CC approach on which we have based our approach in this book. However, the Regulation theory's focus is essentially on industrialized countries' typical crises, and has slightly attended to analyse systematically the developing countries' new capitalisms and their typical crises. For this reason, the Regulation theory may not be helpful in our case, although promising efforts have been made to include emerging countries' capitalisms in the picture (Boyer 2005).

Developing countries' varieties of developmental states have also been intensively surveyed since the 1990s. However, taking East Asian countries like Japan or Korea as their benchmark, these comparative studies have tended to focus on state policies and state-business relationships (Wade 1990) or on the administrative dimension of economic policies (Evans 1979, 1995). At last, they generally don't rely on a theory of the variety of developmental states that could be borrowed and adapted for the purpose of this book, namely identifying and comparing institutional systems in emerging capitalisms. Institutional diversity across developing

countries' capitalisms has recently been emphasized by a handful of economists. They all argue that Chinese, Indian, or Vietnamese emerging economies could reach high-growth performance and trade competitiveness without having conformed to economic policy orthodoxy (Rodrik 2008a, b), with their institutional system exhibiting singular country-specific features (Rodrik 2003; Bardhan 2010). Accordingly, delving into each specific institutional system could help reveal what allows each different economic system to reach—or not—the goals it has set itself. As will be explained in the next two chapters, this system-based analysis requires a convenient framework, which is borrowed from the CC literature. Nonetheless, our comparative analysis is static and may not substitute for in-depth country case studies that would allow identifying the consistencies and contradictions in a more dynamic framework. Lastly, our characterization of national capitalisms is relative since it relies on the identification of similarities and differences between systems of institutional governance across a comprehensive sample of 140 countries. Our description of Chinese and Indian capitalisms therefore relies on their similarities and their differences with other national capitalisms. It may not be compared with the detailed and comprehensive descriptions of these economies that are provided by country case studies.

Although our book is essentially academic and research-oriented, we have nonetheless not neglected various policy issues, especially those related to institutional reforms. Currently, standard institutional reform advocates strengthening property rights, improving the business climate and gaining democratic accountability. These generally advocate strengthening property rights, improving the business climate and gaining democratic accountability, especially in the case of low-income countries or of middle-income countries experiencing sustained growth slowdown. Our analysis, which insists on systems of complementary sector-related institutions, sheds light on several different institutional modernization paths, including a wide range of very experimental and hybrid approaches. The sheer variety of middle-income countries' institutional systems suggests, in fact, that there are several different trajectories available to low-income countries in order to escape the poverty trap. The various patterns of institutional reforms that can be adopted by poor and middle-income countries are discussed in the last chapter.

The book structure can now be outlined. In the following two chapters of Part I, the various attempts at characterizing developing countries' institutional systems are first critically overviewed, before our approach is spelt out in detail. To be more specific, Chap. 2 argues that analysing economic systems requires an approach based on institutional clusters and institutional complementarity. Chapter 3 elaborates on the theory of institutional complementarity underlying our empirical approach, justifies the choice of seven institutional dimensions (labour, social protection, education, competition, finance, agriculture and environment) and goes on to explain how the institutions have been clustered, first at each dimension level, and then at system level. The seven chapters of Part II identify the types of regulation and institutions governing the seven dimensions listed above. In Part III, Chap. 11 presents the 2+4 models of capitalisms identified at system level and characterizes their main performances; Chap. 12 analyses the main institutional complementarities observed at both national and synthetic model levels and addresses the long-term factors that reinforced the internal consistency of the models; Chap. 13 addresses the dynamic patterns of institutional change for a selection of middle-income countries. The concluding Chap. 14 then discusses the full range of policy and reform issues that have emerged throughout the book.

References

Acemoglu, D., S. Johnson, and J.A. Robinson. 2001. The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review* 91 (3): 1369–1401.

Acemoglu, D., and J.A. Robinson. 2000. Political Losers as a Barrier to Economic Development. *The American Economic Review* 90 (2): 126–130.

———. 2012. *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. London: Profile Books.

Acemoglu, D., J.A. Robinson, and T. Verdier. 2012. Can't We All Be More Like Scandinavians? Asymmetric Growth and Institutions in an Interdependent World. *NBER Working Papers* 18441, National Bureau of Economic Research, Inc.

Akerlof, G. 1976. The Economics of Caste and of the Rat Race and Other Woeful Tales. *Quarterly Journal of Economics* 90: 599–617.

Amable, B. 2003. *The Diversity of Modern Capitalism*. Oxford: Oxford University Press.

Aoki, M. 2001. *Toward a Comparative Institutional Analysis*. Cambridge, MA: The MIT Press.

Baland, J.-M., K.O. Moene, and J. Robinson. 2010. Governance and Development. In *Handbook of Development Economics*, ed. D. Dani Rodrik and M. Rosenzweig, vol. 5, 4039–5061. Amsterdam: North-Holland.

Bardhan, P. 2005. *Scarcity, Conflicts, and Cooperation: Essays in the Political and Institutional Economics of Development*. Cambridge, MA: The MIT Press.

———. 2010. *Awakening Giants, Feet of Clay: Assessing the Economic Rise of China and India*. Princeton, NJ: Princeton University Press.

Beck, T., A. Demirguc-Kunt and R. Levine. 2003. Law and finance: why does legal origin matter? *Journal of Comparative Economics*, 31 (4) : 653–675.

Becker, U. 2009. *Open Varieties of Capitalism: Continuity, Change and Performances*. Basingstoke: Palgrave Macmillan.

Benabou, R. 2006. Inequality, Technology and the Social Contract. In *Handbook of Economic Growth*, ed. P. Aghion and S. Durlauf, vol. 1, 1595–1638. Amsterdam: North Holland, Elsevier.

Berger, D., W. Easterly, N. Nunn, and S. Satyanath. 2012. Commercial Imperialism? Political Influence and Trade during the Cold War. *American Economic Review* 103 (2): 863–896.

Berkowitz, D., K. Pistor, and J.-F. Richard. 2003. Economic Development, Legality, and the Transplant Effect. *European Economic Review* 47 (1): 165–195.

Besley, T., and T. Persson. 2011. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton, NJ: Princeton University Press.

Botero, J., S. Djankov, R. La Porta, F. López-de-Silanes, and A. Shleifer. 2005. The Regulation of Labor. *The Quarterly Journal of Economics* 119 (4): 1339–1382.

Bowles, S. 2004. *Microeconomics: Behavior, Institutions and Evolution*. Princeton, NJ: Princeton University Press.

Boyer, R. 2005. How and Why Capitalisms Differ. *MPIfG Discussion Paper* No. 05/4, Max Plank Institute for the Study of Societies.

Boyer, R., and Y. Saillard. 2002. *Regulation Theory: The State of the Art*. London: Routledge.

Dasgupta, P. 2005. Economics of Social Capital. *Economic Record* 81 (1): S2–S21.

Dezalay, Y., and B.G. Garth. 2002. *The Internationalization of Palace Wars: Lawyers, Economists, and the Contest to Transform Latin American States*. Chicago: University of Chicago Press.

DiMaggio, P.J., and W.W. Powell. 1991. *The New Institutionalism in Organizational Analysis*. Chicago: University of Chicago Press.

Dixit, A.K. 2004. *Lawlessness and Economics: Alternative Modes of Governance*. Princeton, NJ: Princeton University Press.

Djankov, Simeon, Edward Glaeser, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2003. The New Comparative Economics. *Journal of Comparative Economics* 31 (4): 595–619.

Economist (The). 2012. The Visible Hand. Special Issue, 21 January.

Evans, P.B. 1979. *The Alliance of Multinational State and Local Capital in Brazil*. Princeton, NJ: Princeton University Press.

———. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton, NJ: Princeton University Press.

Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*. Cambridge, MA: Polity Press & Princeton University Press.

Fafchamps, Marcel. 2004. *Market Institutions and Sub-Saharan Africa: Theory and Evidence*. Cambridge, MA: MIT Press.

Freeman, R.B. 2000. Single Peaked vs. Diversified Capitalism: The Relation Between Economic Institutions and Outcomes. *NBER Discussion Paper* No. 7556. Washington, DC: National Bureau of Economic Research.

Fukuyama, F. 1992. *The End of History and the Last Man*. New York: Free Press.

Granovetter, M. 1985. Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology* 91 (3): 481–510.

Hall, P.A., and D. Soskice. 2001. An Introduction to Varieties of Capitalism. In *Varieties of Capitalism: Institutional Foundations of Comparative Advantage*, ed. P.A. Hall and D. Soskice, 1–78. Cambridge: Cambridge University Press.

Hancké, B., M. Rhodes, and M. Thatcher. 2007. Introduction: Beyond Varieties of Capitalism. In *Beyond Varieties of Capitalism: Contradictions, Complementarities & Change*, ed. B. Hancké et al., 3–38. Oxford: Oxford University Press.

Heller, M.G. 2009. *Capitalism, Institutions, and Economic Development*. Abingdon: Routledge.

Hoff, K., and A. Sen. 2006. The Kin System as a Poverty Trap? In *Poverty Traps*, ed. S. Bowles, S. Durlauf, and K. Hoff. Princeton and Oxford: Princeton University Press.

Jackson, G., and R. Deeg. 2006. How Many Varieties of Capitalism? Comparing the Comparative Institutional Analyses of Capitalist Diversity. *MPIfG Discussion Paper* No. 06/2.

Knack, S., and P. Keefer. 1995. Institutions and Economic Performance: Cross-country Tests Using Alternative Institutional Measures. *Economics and Politics* 7 (3): 207–227.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny. 1997. Legal Determinants of External Finance. *Journal of Finance* 52 (3): 1131–1150.

Lipset, S.M. 1959. Some Social Requisites of Democracy: Economic Development and Democracy. *American Political Science Review* 53 (1): 69–105.

Mauro, P. 1995. Corruption and Growth. *The Quarterly Journal of Economics* 110 (3): 681–712.

North, D.C. 1990. *Institutions, Institutional Change and Economic Performance*. New York: Cambridge University Press.

———. 1991. Institutions. *Journal of Economic Perspectives* 5 (1): 97–112.

———. 2005. *Understanding the Process of Economic Change*. London: Institute of Foreign Affairs.

North, D.N., J.J. Wallis, and B.R. Weingast. 2008. *Violence and Social Order: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge, MA: Cambridge University Press.

OECD. 2010. *Perspectives on Global Development 2010: Shifting Wealth*. Paris: Organization of Economic Cooperation and Development.

Ohmae, K. 1995. *The End of the Nation-state*. New York: Simon & Shuster.

Olson, M. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.

Parsons, T. 1964. Evolutionary Universals in Society. *American Sociological Review* 29 (3): 339–357.

Pande, R., and C. Udry. 2006. Institutions and Development: A View from Below. Yale University, Mimeo.

Przeworski, A., M. Alvarez, J.A. Chehub, and F. Limongi. 1996. What Makes Democracies Endure? *Journal of Democracy* 7 (1): 39–55.

Pryor, F.L. 2008. System as a Causal Force. *Journal of Economic Behavior & Organization* 67 (3): 545–559.

———. 2010. *Capitalism Reassessed*. Cambridge, MA: Cambridge University Press.

———. 2011. Capitalism and Freedom? *Economic Systems* 34 (1): 91–110.

Qian, Y. 2003. How Reform Worked in China. In *In Search of Prosperity: Analytic Narratives on Economic Growth*, ed. Dani Rodrik, 297–333. Princeton, NJ: Princeton University Press.

Rodrik, D. 1997. *Has Globalization Gone Too Far?* Washington, DC: Institute for International Economics.

———. 2003. *In Search of Prosperity, Analytic Narratives on Economic Growth*. Princeton, NJ: Princeton University Press.

———. 2008a. Goodbye Washington Consensus, Hello Washington Confusion? *Journal of Economic Literature* 44 (4): 969–983.

———. 2008b. Second Best Institutions. *American Economic Review: Papers and Proceedings* 98 (2): 100–104.

Roland, G., and J. Jellema. 2011. Institutional Clusters and Economic Performances. *Journal of Economic Behavior and Organization* 79 (1–2): 108–132.

Rudra, N. 2007. Welfare Regimes in Developing Countries: Unique or Universal? *Journal of Politics* 69 (2): 378–396.

Rudra, N. 2008. *Globalization and the Race to the Bottom in Developing Countries: Who Really Gets Hurt ?* Princeton, NJ: Cambridge University Press.

Shleifer, Andrei, F. Lopez-de-Silanes, and R. La Porta. 2008. The Economic Consequences of Legal Origins. *Journal of Economic Literature* 46 (2): 285–332.

Wade, R. 1990. *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*. Princeton, NJ: Princeton University Press.

World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. Washington, DC: The World Bank.

Xu, C. 2011. The Fundamental Institutions of China's Reforms and Development. *Journal of Economic Literature* 49 (4): 1076–1151.

2

Existing Typologies of Developing Countries' Institutional Systems

Eric Rougier

2.1   Introduction

Three parallel strands of the literature have addressed the extent to which institutional systems can differ from one country (or group of countries) to another, and how economic outcomes are affected by these institutional differences. First, comparative case studies have proposed different typologies of developing countries' political economies. Second, Comparative Capitalism (CC) scholars have proposed fine-grained descriptions of the variety of national socioeconomic models of production and distribution[1] within developed economies. Third, New Institutional Economics (NIE) scholars have analysed the impact of various clusters of institutions on economic development. Although these three blocks of literature are different, both in terms of their main objects and the methods they use,

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[1] See Jackson and Deeg ([2006](#)) for a survey of this literature.

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they tend, nevertheless, to share a similar vision of institutions. All in all, these three approaches refer to the idea that institutions and systems of rules organize socioeconomic and political transactions between individuals and groups, thereby bolstering such crucial features of capitalism as free market exchange and profit-motivated factor accumulation. Likewise, they all consider that institutional systems are shaped by long-term factors like sociocultural patterns, socioeconomic modernization and changes in the political environment. A recent illustration of this is given by Acemoglu and Robinson (2012: 110) who stress the role of historical contingencies in the setting up of institutional systems, pointing out that "the outcomes of the events during critical junctures are shaped by the weight of history" with the existing political and economic institutions delineating the range of possible outcomes.[2]

These three strands of literature, however, differ with respect to their institutional system approach. New Institutional Economics essentially focuses on a restricted set of isolated transversal institutions, such as property rights or contract enforcement, constraints on chief executives, or some aggregate indicators of social infrastructure, which are supposed to catalyze the efficiency of economic or political governance. The CC and comparative political economies literature, by contrast, have provided a more comprehensive understanding of political economies, notably as regards the complementarities between different sets of institutions. The two latter approaches argue that national varieties of capitalism or political economies can be differentiated with respect to their specific types of governance in such dimensions as corporate governance, labour market regulations, social protection, and welfare state, or state-market relationships. Every sectoral type of institutional governance is thus considered in its articulation with the others. Put simply, labour market regulation should not be considered on its own, but as being systematically connected to the institutions governing competition on goods markets and, at a more general level, to the prevalent model of state-market economic and political relationship. We show in this chapter that these different

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[2] In most countries, past institutions were shaped by such long-term determinants as culture, geography or demography. Such factors include urban densities (Acemoglu et al. 2002), the nature of European settlements (Hall and Jones 1999; Acemoglu et al. 2001) and modes of agricultural land exploitation (Engerman and Sokoloff 2002).

approaches could gain from being cross-fertilized, so that differences in economic development could be explained by the institutional systems (and not merely by the single degree of enforcement of one-dimensional institutions). This is the overriding aim of this book.

This chapter first overviews the literature about developing countries' political economies and shows that, although this literature has proposed interesting typologies, it does not really address the systemic dimension of capitalist systems. The present chapter goes on to show that CC has worked out original variants of OECD models of capitalism that could be relevant when describing emerging capitalisms. Yet, these so-called variants are mainly *a priori* ideal-types, based on regional capitalism characteristics and, as such, not useful when trying to compare the economic systems of a comprehensive set of developing nations. In the last section, the cluster approach to institutions carried out by development economists and new institutional economists, is described and criticized on the grounds that it is not fully adapted to comparing socioeconomic systems of rules and institutions, unless based on stronger theoretical foundations.

2.2 Varieties of Political Economies

In the early 1990s, various works endeavoured to identify and compare varieties of political economies across developing economies. Unfortunately, one common feature was that they were not firmly based on explicit theoretical grounds, merely tending to propose ad hoc typologies of political regimes or socioeconomic coordination models. Although the Washington Consensus set of policies had been implemented in developing countries for a decade, often unsuccessfully, the variety of political economies was put forward as a possible explanation for persistent differences in the effectiveness of economic reforms. For example, it was alleged that if less regulated and more democratic systems had outperformed other types of economic systems from 1960 to 1990, it was mainly because their political economy had rendered them more apt to reap the benefits of correctly and fully implemented structural reforms (Krueger 1993). By the same token, their intrinsic political characteristics

had enabled these successful countries to both promote growth and alleviate poverty (Lal and Myint 1996). Even though they were certainly path-breaking works for economists interested in policy issues in developed countries, the results of these two studies only relied on the comparison of a limited number of countries. Moreover, the definition of a political economy was somewhat broad, with the type of state-business relationship being associated with the nature of the political regime.

The typology of economic coordination models proposed by Finn (1994) was both more comprehensive, since it included a sample of 166 countries, and also more focused on economic features. It was essentially based on the one-dimensional measure of the *degree of capitalism* published by Freedom House (2008). Capitalism scores were assigned to countries according to the importance accorded to private enterprise and competition in the overall economic organization. The restricted sample of countries that was used sub-classified several variations of liberal and statist models: Ethiopia and Iraq were classified as *Statist*, Egypt and Rwanda as *Mixed Statist*, Malta as *Mixed Capitalist-Statist*, India and Italy as *Capitalist-Statist*, Greece and Senegal as *Mixed-capitalist* and Botswana and the USA were classified as *Capitalist*. Both scoring and typology were based on the assumption that larger private sector shares of output meant more market-based coordination. Since Finn's typology was clearly focused on the dominant trait of economic coordination, whether statist or market-based, it was in fact limited to a partial account of capitalist regulations, with dimensions such as social protection or labour regulations being totally overlooked. Moreover, developing and developed countries ended up as having similar modes of economic coordination, even though Indian and Italian, or Greek and Senegalese corporate and state organizations were not comparable.

Finn's classification has inspired a series of works that all had in common the fact of adding original ideal-typical models that would more easily correspond to emerging capitalisms. East Asian varieties of capitalism have thus been described as either *Meso-corporatist* or *Meso-communitarian* (Boyer and Hollingsworth 1997). Becker (2009) has also proposed two additional sub-varieties, described as being particularly relevant for most developing countries. The *Clientelist* variety is characterized by strong patron–client ties between state or party officials and citizens/groups

or privately owned businesses. These relationships are based on mutual advantages, with the patron providing clients with excludable resources (jobs, welfare benefits, market protection), and on clients committing in return to cooperate with the patron.[3] When clientelism is supported by pervasive government and administration interventions in the social and economic spheres, the model becomes *Patrimonial* and is often authoritative. According to Becker (2009: 62), *Patrimonial* capitalism can be characterized by strong patron–client ties between the political centre, local politicians, and the heads of business companies. *Patrimonial* systems have been described for contemporary Russia and China, but similar patterns have been described for certain East and South Asian countries under the heading of *Crony* capitalism (Kang 2002). In such systems, private business expansion is generally conditional on the existence of close links with government, with the latter giving the former preferential access to legal permits, public subsidies, market protection, low interest rates or tax breaks. Corruption and political capture are, consequently, strong features of *Patrimonial* capitalisms. Becker (2009) has suggested an additional variety called *Patrimonial "politicized"* capitalism, based on the absence of clearly defined state-firm boundaries. He cites China and Russia as illustrations of this extreme type of embedded capitalism, where the state dominates society and the economy to a far larger extent than in *Statist*, *Corporatist*, or *Communitarian* varieties, with the capitalist component being reduced to its minimum size and autonomy. Even if these two countries retain extreme forms of patrimonial states, other developing countries, such as Egypt, could also match this model.[4]

At the present stage, it should be noted that the line of demarcation between the *Patrimonial* and the *Developmental* model is rather slender. As an illustration, similar industrial policies, consisting of picking and supporting winners, have been observed in countries with one or other of these two models (Robinson 2009). The *Competitive "developmental"* state is a model of political coordination of the economy that has been successfully implemented by several East Asian economies, but also by a few African

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[3] Mediterranean countries have been frequently typified as *Clientelist* capitalisms and, according to Becker (2009), this variety has been (and is still) widespread throughout the developing world.

[4] For two recent analyses of Middle Eastern and North African national authoritarian-patrimonial political economies, see Cammett et al. (2015) and Rougier (2016).

economies such as Botswana (Rodrik 2003) and Mauritius (Subramanian and Roy 2003). Many developing countries, especially in Africa or Latin America, also correspond, at least partially, to models of *Natural resource rent extractive*. In certain cases, they also have the characteristics of the *Factional-distributive* models typically found in these two regions. These are essentially variations of *Patrimonial* states with natural resource rents that are redistributed to political, possibly ethnic, clienteles. Sgard (2008) proposes an alternative typology opposing three models of developing capitalist economies. African economies generally correspond to *Natural resource rent extractive* models, whereas emerging economies like Brazil, China, India or Vietnam are characterized by an *Autonomous and strong state*. By contrast, most Latin American countries, which have progressively liberalized regulation and reduced their tax resources, are typified as liberal economies with non-autonomous states. Additional types of capitalism, more focused on state-business ties, have been proposed by Evans (1995). He opposes the *Predatory*, *Developmental*, and *Intermediary* models of states, which are basically differentiated by the degree to which administrative bureaucracy and government are autonomous from capture and, at the same time, embedded in external ties with business and entrepreneurs providing information and incentives. East Asian historical experience of state and administration embedded autonomy are put forward as models to be emulated by other non-Asian countries.

Baumol et al. (2007) have proposed a typology opposing *State-guided capitalism* (East Asia, South East Asia, and India), *Oligarchic capitalism* (Africa, Latin America and Middle East and North Africa), *big-firm capitalism* (European continent and Japan, and certain United States industries), and *Entrepreneur capitalism* (United States). This classification basically hinges on the reduction of capitalist systems to state-business relationships.[5] *State-guided capitalism* is characterized by strong degrees of state support of specific industries, and state orientation of sectoral change. *Oligarchic capitalism* is a system in which the bulk of political power and economic wealth is concentrated by elites. *Big-firm capitalism* is made up of giant horizontal or vertical companies concentrating most

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[5] This work, funded by a pro-business American think tank, is guided by the normative objective of promoting the superiority of small entrepreneur-capitalism over the other possible forms.

of the significant economic activities. Ultimately, *Entrepreneurial capitalism* is characterized by small innovative firms, which leads to high growth and technological performance. This categorization echoes Wade's (1990) distinction between the *governed market* and *market-supporting* strategies that were implemented by various East Asian and non-East Asian developing countries.

One of the main objectives of the literature comparing the political economies of developing countries has been to depict Asian developmental states, notably in contrast with other regional models that had not developed the set of basic institutional characteristics that had proven essential for the East Asian miracle. In other words, this literature has tended to treat the majority of developing countries on the basis of the political institutions that they *do not* have, rather than as regards those they *do* have. Accordingly, the scope of the proposed typologies is limited, by construction, since non-Asian models are generally characterized by default. Moreover, these models are neither grounded in sound theoretical assumptions nor supported by a robust statistical analysis; they are drawn, instead, from mere intuitions. This is not the case in what concerns the two bodies of works that are reviewed in the following sections: CC scholars have defined deviant and exotic varieties of capitalism that are based on strong theoretical foundations, and New Institutional Economists have recently tried to provide statistical assessments of institutional clusters.

2.3 Regional Varieties of Deviant Capitalisms

In this section, we only briefly mention the well-known typologies of capitalist systems focusing on OECD countries.[6] Our main goal is to review the way CC has dealt with the variety of capitalist models prevailing among developing non-OECD countries.

CC labels varieties of capitalist systems by choosing various dimensions, such as labour and production relationships, the modes of business coordination, and the type of welfare state for which a set of countries

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[6] For a survey, see Jackson and Deeg (2006).

exhibits similar structural characteristics. This set of countries is classi-fied under a specific capitalism ideal-type that is further characterized. Hall and Soskice (2001), the most frequently quoted CC reference, have proposed a binary classification of OECD capitalisms into *Coordinated market economies* (CMEs) and *Liberal market economies* (LMEs). They have shown, moreover, that both these institutional patterns are inter-nally consistent and have developed comparative advantages in different areas of production. Yet, since these CC typologies mainly refer to mature European and North-American capitalisms, they simply prove inad-equate to describe the specific patterns of coordination that are observed for developing or transition countries, as explained in Chap. 1.

The identification of additional ideal-types of capitalism that could better correspond to emerging countries requires the researcher to respect an elementary principle of parsimony. As underlined by Nölke and Vliegenthart (2009: 676), any new variety should respect three condi-tions: (1) the existence of an alternative overall economic coordination mechanism closely related to (2) a relatively stable set of institutions based on marked institutional complementarities, which in turn lead to (3) a set of specific comparative advantages determining higher lev-els of economic performance than those of comparable socioeconomic systems. It should be noted, however, that, if these three conditions were to be simultaneously fulfilled, finding new varieties of capitalism would prove awkward, especially in the case of developing countries. Insofar as they have not established their methodological framework to match developing countries' specificities, CC scholars have tended to ignore the potentially non-complementary forms of capitalism in non-OECD countries. In the case of many developing countries, finding a clear-cut alternative mechanism of overall economic coordination could prove dif-ficult, since their institutional systems often hybridize several modes of socioeconomic governance: liberalized export sectors, informal agricul-ture and urban trade, and state-protected service or public utility sectors. Hence, institutional complementarities might be difficult to detect in these economies. Scholars should examine instead the institutions that regularly coexist, intentionally or incidentally, more than the institutions that are supposed to have been associated because they were, initially, considered as complementary.

Various attempts have been made to qualify models of East Asian capitalism. Amable's (2003) East Asian model, however, neither really differentiates between Japan and Korea, nor does it address such recently emerging Asian capitalisms as China or Vietnam. East Asian economies such as Japan, Korea, and Taiwan have often been described as developmental states, with only slight variations between them (Evans 1995). A subtler distinction between the different types of Asian capitalism was made by Orru et al. (1997) who focused on the use of horizontal and vertical coordination at different levels of the economy. They identified three forms of Asian capitalism: *Alliance capitalism* (Japan) involving financial, industrial, and social cooperation across the boundaries of firms and mixed business-administrative networks; *Dirigiste capitalism* (South Korea) typified by a higher degree of subordination of the private economy to state administration; and *Family capitalism* (Taiwan) consisting of smaller firms tied by strong personalistic family networks. More recently, Zhang and Whitley (2013) have found four distinct varieties of Asian capitalisms that closely resemble the classification by Orru et al. (1997). Harada and Tohyama (2011) have recently proposed an alternative classification of Asian economies into varieties of capitalisms that are remarkably heterogeneous, with these different models having experienced divergent trajectories during the 2000s. Singapore and Hong Kong correspond to *City Capitalism*, Indonesia and Philippines are classified as *Insular Semi-agrarian capitalism,* Japan, Korea and Taiwan as *Innovation-led capitalism*, Malaysia and Thailand as *Trade-led industrializing capitalism* and China is typified as a *Continental mixed capitalism*. This classification is closer, as explained in Chap. 12, of our own typology, at least for China, Malaysia and Thailand.

As for Central and Eastern European (CEE) post-transition economic systems, CC scholars have adopted two alternative strategies. One initial strand of studies has attempted to derive new models from existing varieties of capitalism (King 2007; Lane 2005). These models have, however, merely been intermediate or unachieved types derived from the models of OECD countries' capitalisms. Accordingly, developing economies have been commonly typified as "deviant" cases, characterized by "a mix of logics, a high degree of institutional incoherence and an apparent

absence of complementarities" (Molina and Rhodes 2007: 223). CEE
(Central and Eastern European) economies are thus described as mixed-
market economies associating, in an original fashion, high levels of wel-
fare and liberal-style industrial relations or labour market institutions
(Mykhnenko 2007). For those scholars, CEE countries' institutional sys-
tems are supposed to have embarked, with the exception of a few weakly
coordinated and marginally integrated economies, upon a convergence
process towards CME (Lane 2007; Hancké et al. 2007). A second strand
has considered that the CC categories relevant for the *core* of the world
economy are of a more limited relevance for its periphery. These authors
have pointed out that studying CEE economies, or any other emerging
economy, using the ideal types crafted for independent stable and mature
economic systems, leads to a dead end. One reason invoked is that emerg-
ing economies' socioeconomic systems are afflicted by a high degree of
institutional incoherence and of dependence on Western European firms,
via FDI (King 2007; Bohle and Greskovits 2007; Degenkolb 2010).
Comparative Capitalism scholars have tried, accordingly, to adapt exist-
ing models to CEE economies' specificities: high shares of FDI and for-
eign ownership of business, transitional institutional systems, and high
degrees of institutional dependence on external influences (Nölke and
Vliegenthart 2009; Schneider 2009; Lane and Myant 2007).

Although dependent economies were initially observed in Latin
America[7] by Evans (1979), the *Dependent Market Economy* (DME) model
of emerging capitalism, used to qualify Central and Eastern European
systems, has been formalized by Nölke and Vliegenthart (2009).[8] In
Latin America or Central and Eastern European countries during the
1980s and 1990s, the leading political class adhered to economic poli-
cies that spurred rapid economic restructuring and FDI attraction, with
the absence of a strong domestic entrepreneur class, thereby fostering
the establishment of an economic system that was very accommodat-

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[7] At that time, they were fairly liberalized economies, with their comparative advantage lying in
relatively low labour costs, and a skilled population with substantial knowledge of a medium level
of technology.

[8] Likewise, King (2007) has labelled *Liberal dependent* the capitalism of CEE countries that are
liberalized, but simultaneously depend on foreign capital, whilst lacking an effective and autono-
mous bureaucratic state.

ing to transnational corporations (TNC) investments (Schneider 2009; Drahokoupil 2008). Given the extremely large volume of FDI in CEE countries, Nölke and Vliegenthart (2009) stress that hierarchy within transnational corporations is the central coordination mechanism of DMEs, in contrast to competitive markets and short-term formal contracts for LMEs, or inter-firm networks and long-term relationship for CMEs. The model also shows a strong internal consistency across the different institutional sectors. By using their bargaining power to limit the extent of unionized collective bargaining, and by paying their workers the wage levels needed to limit turnover and social instability, TNCs exert a crucial influence on the governance of labour relationships. Likewise, tax cuts and capital mobility limit the state's potential to invest in public education, with the development of an ambitious vocational training programme at national or sectoral levels being hindered by the lack of external network coordination between firms. Nölke and Vliegenthart (2009) conclude that the type of institutional advantage of Eastern European DMEs is geared towards attracting fully developed technologies of assembly platform for semi-standardized industrial goods, with the highly innovative parts of the business cycle remaining abroad.

Schneider (2009) has identified parallel features for the Latin American dependent model of capitalism. Also, in line with Hall and Soskice's CME and LME, Schneider (2009) proposes a new variety, called *Hierarchical market economy* (HME), which may fit particularly well with the Latin American modes of state-business and capital-labour relationships. Like Nölke and Vliegenthart (2009) for CEE firms, Schneider points out the prevalence of strong hierarchical links between TNCs and domestic Latin American firms diversified business groups, and, within firms, between workers and executives. Additionally, the author also argues that the strong connection between TNCs and domestic diversified business groups explains the tendency of domestic firms to underinvest, both in skills and in the institutions of labour representation.

Very similar features can also be observed in other parts of the developing world like the Middle East and North Africa or in some South Asian countries in the context of the new regionalization of production,

organized respectively by European and Asian TNCs.[9] Accordingly, DME or HME could easily be considered as two particularly relevant categories for typifying certain emerging capitalisms. Interestingly, Nölke and Vliegenthart (2009) have pointed to a possible connection between contemporary CC development and current development issues. Insofar as increasing numbers of developing countries have chosen to attract FDI so as to access global value chains, their comparative advantages, especially when these come from cost-reducing institutional advantages or fiscal incentives, are constantly being threatened by lower cost countries just escaping from the poverty trap. Moreover, their connection with the world economy might continue to remain limited to localized segments of their economies, thereby leading to increasing social and political tensions (Nölke and Vliegenthart 2009). Hence, these countries will need to reform their institutional system once FDI attraction no longer constitutes a fruitful development strategy.

Large emerging countries like Brazil, Egypt or India, however, can hardly be considered as being either DME or HME. Their economic system is not overly dependent on FDI, and their economic and political elites are not especially dominated by TNCs. Their states, generally independent from foreign firms' influence, are heavily interventionist, with the social contracts being generally highly redistributive and geared towards the strengthening of domestic middle classes. Hence, these countries must be described by other institutional logics. Equally, very few typologies have been suggested with respect to the poorest African or South Asian economies. One explanation could be that talking about capitalism does not come naturally when neither a developmental state nor business groups have actually emerged. As regards the ever-increasing numbers of emerging nations in Asia or Africa, therefore, there is still an urgent need to identify their socio-organization model. By neglecting the institutional differences across economies located in the same cultural or geographical area, the focus put by CC typologies on regional types of capitalism has certainly delayed the progress of comprehensive statistical analyses of emerging countries capitalisms. Other types of emerging

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[9] Similar political economies of FDI attraction have been described by Piveteau and Rougier (2011) for Morocco and Tunisia.

capitalism models certainly need, therefore, to be identified and characterized, with the FDI-dependent type of capitalism being only one possible, non-exclusive, model.

To conclude this section, the literature dealing with the "exotic" varieties of emerging capitalisms is fairly sparse and heterogeneous. Various attempts have been made to propose new varieties of capitalism adapted to emerging countries in direct connection with the CC approach, but their scope has been restricted to regional sets of countries. Even though they were supposed to be more firmly grounded, theoretically, these propositions finally suffered from the same shortcomings as those of the typologies predefined on purely intuitive grounds, as indicated in the previous section. The very few attempts to ground such classifications in sound statistical analysis are presented in the next section.

2.4   Institutional Clusters and Statistical Analyses of Economic Systems

Studies of developing countries' institutions have proliferated over the two last decades. New Institutional Economics (NIE) scholars have extensively studied the role of institutions as a long-term factor of economic development. They initially concentrated their efforts on studying the historical process of institution building and its economic consequences over time.[10] Various country case studies have also provided valuable information about the internal logic of national institutional systems. There have, however, been very few attempts to compare and organize the huge variety of national institutional configurations naturally resulting from that approach.[11] Other works have focused their attention on correlations between parsimonious sets of institutions and economic outcomes. This latter approach has relied on the increased availability of institutional cross-country data to rank developing countries according to a single one- or multi-dimensional comparable scalar synthesizing

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[10] See North (1990) and Greif (1992, 1993, 1994).

[11] Two exceptions are the volume edited by Rodrik (2003), or the recent comparison of India and China by Bardhan (2010).

the various dimensions of their institutional system. Even though this macro-institutional statistical approach does not explicitly mention the term *capitalism*, its theoretical set-up implicitly acknowledges the "diversity of economic systems".[12] The macro-statistical approach, however, cannot identify the variety of regulation modes across all possible dimensions of the economic system. Pryor (2011), for example, has computed an original index quantifying the degree of capitalism for a cross-section of countries. He defines capitalism by three attributes: private and legally protected ownership of the means of production, competitive markets and direct economic freedom. For example, private property and legal protection is measured by a composite index averaging law and order, and the extent of public and private ownership of the means of production. These aggregate indicators of the degree of capitalism do not really describe the black box; that is, the very nature of the socioeconomic organization of each country. Such one-dimensional measurements of capitalism are just strong correlates of the levels of GDP per capita.[13] Very often, they specify a distance to the US "purest" model of capitalism, without truly addressing capitalism diversity. Even though the quantitative approach to institutions has helped explain persistent economic development differences it has not, so far, effectively questioned the complementary nature of capitalist countries' institutional systems. Yet, as shown by CC works on OECD capitalisms, differences in economic performance might be conditioned by the specific articulation of various institutional dimensions, once the degree of enforcement of a limited set of generic institutions has been controlled for.

Moreover, the germane setting for analysing institutional systems in developing countries may be a second-best one; namely, no ex-ante selection of the good institutions, and the possibility that non-standard practices may be efficient at system level, even though they may be, on their own, theoretically inefficient. As soon as national institutional systems

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[12] Yet, this does not really parallel what CC calls "varieties of capitalist systems". For NIE, diversity refers mainly to the various combinations of political and economic institutions (Acemoglu and Robinson 2012), or to the variety of social equilibrium solutions with respect to the degrees of private and public predation (Djankov et al. 2003).

[13] For example, Pryor's index of capitalism and GDP per capita are strongly and significantly correlated (0.690).

are conceived of as bundles of sector-specific institutions interacting one with another then, clearly, implementing a cross-sectional comparison of one-dimensional institutional attainment is not the most convenient method.[14] Pooling separate indicators of regulations or institutions into a composite indicator (Djankov et al. 2003; Braga de Macedo and Martins 2008; Berr et al. 2009; Rice and Patrick 2008) may not be a convenient approach either, because it predetermines the mix of institutions and regulations that are supposed, *ex ante*, to be complementary in a typical first-best approach, thereby constraining the potential diversity across national models.

Several works (reported in Table 2.1) have recently placed more emphasis on complementarities in the context of developing countries. Yet very few of them have proposed a statistical treatment of this assumption. In their book on the long-term economic effect of institutions in developing countries, Acemoglu and Robinson (2012) oppose two complementary institutional dimensions, the political and economic ones. They show that only a combination of inclusive political and economic institutions enables countries to reach high levels of economic development in the long run. Besley and Persson (2011) focus on two other complementary dimensions, showing that state capacities in both the legal and fiscal dimensions are necessary conditions for efficient development policies. Their analysis points to a crucial source of complementarity between these two forms of state capacity, each of these dimensions reinforcing the other, and they claim that this complementarity is a natural way to think about the clustering of institutions in developing countries. In standard fashion, however, they use proxies for both capacities, and test their assumption by cross-sectional econometrics. In their analysis of natural and open access states, North et al. (2009) argue that equal access to different types of public goods is a predominant characteristic of developed countries' open access orders. They show that equal access has generally been provided in a certain sequence: first, the rule of law, followed by mass education and infrastructure and, finally, equal participation in labour markets, including the provision of social insurance

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[14] See also the criticism by Hausmann (2008) and Rodriguez (2007) of cross-country methods that do not deal with dimensionality, diversity, and make controversial assumptions about linearity.

Table 2.1 Clusters of institutions/clusters of countries

Reference	Sample	Clusters of institutions	Indicators	Clusters of countries	Statistical treatment
Acemoglu and Robinson (2012)	No sample	Inclusive economic institutions	Property rights, rule of law for all; equal access to public service; open access to markets	No	No
		Inclusive political institutions	Centralization; state legal and fiscal capacity to enforce over the whole territory; pluralism and democracy		
Besley and Persson (2011)		State legal capacities State fiscal capacities Public-interest system	Protection of property rights Total taxes as a share of GDP	No	No
Gollwitzer Franke and Quintyn (2012)	108 developing and developed countries	Rule of law for all	Constraints on the executive; judiciary independence; government respect of contracts; property rights enforcement	No	Composite indicators Regressions of GDP per capita, inequality and democracy
		Permanence and stability of organizations	Political stability; stability and independence of organizations		
		Non-military politics	Political control of the legal armed forces; military interference in political life; level of armed violence in society		
Roland and Jellema (2011)	30–70 developing countries	Political cluster	Competitiveness of the political system; executive constraints; type of political regime; decentralization	No	Principal components regressions of growth and income
		Legal cluster	Legal origins; case law; tenure of judges; judicial review, constitution rigidity		
		Cultural cluster	Religion; fractionalization; trust, voice, order, anti-corruption values; anti-authoritarian values		

Pryor (2008)	OECD countries	Economic Institutions cluster	Various indicators covering the product market, the labour market, the business sector and the financial sector	Yes	Clusters Comparison of cluster composition Direction of causation
		Cultural cluster	Various World Values Survey subjective indicators		
		Performance cluster	Various indicators of economic and social performance		
Pryor (2006)	41 developing countries	Clusters of economic systems	Market institutions (regulation of product market, protection of patent rights, legal environment, barriers to start a business, trade barriers, government subsidies, free prices, product market competition, business clusters)	Yes	Clusters of countries Comparison of cluster performance (GDP growth, growth volatility, inflation)
			Labour market (labour protection, collective bargaining, union density, education level)		
			Enterprises and production sector (shareholder rights, creditor rights, worker participation to decisions, inequality of land holdings)		
			Government sector (public consumption, transfers, social security coverage, contract security, state-owned firms)		
			Financial sector (indicators of size, transparency, regulation)		

Table 2.1 (continued)

Reference	Sample	Clusters of institutions	Indicators	Clusters of countries	Statistical treatment
Rudra (2007)	30 developing countries	Social welfare	Decommodified protection (public employment; social security and welfare spending; housing subsidies; labour market protections; investment in tertiary education Commodified protection (public investment in primary and secondary education, and basic healthcare; literacy rates; rates of infant mortality; percentage of infants vaccinated against diphtheria, pertussis, and tetanus)	Yes	Clusters of countries

systems. Gollwitzer Franke and Quintyn (2012) have provided an empirical test of this sequence by clustering certain institutions and examining their effect on economic outcomes. They divide these "stylized steps" into three sets of doorstep conditions corresponding successively to the rule of law for both the masses and the elites (Doorstep 1), the existence of perpetually lived organization, including the state (Doorstep 2), and consolidated political control of the military (Doorstep 3). The authors argue that meeting the Doorstep 1 condition enables the other doorsteps to be met, with the three doorsteps interacting at various levels. There is, consequently, complementarity between these three dimensions of institutions. Even though they are concerned by complementarity issues, these studies essentially propose universal patterns of inclusive state creation. The diversity of institutional configurations across developing countries is not primarily addressed by these studies, the clustering of institutions being limited to political and socioeconomic organizations.

Several other works have more explicitly addressed the issue of institutional clustering. Meisel and Ould Aoudia (2008) have offered a rich categorization with respect to original subjective ratings of various dimensions of institutions of developing countries, but they limit their approach to a principal components analysis. They show that developing countries are mainly differentiated according to their degrees of economic development and democracy. Government characteristics, such as elites giving priority to development, or rulers creating a common interest in development, are correlated to these two dimensions. However, in connection with the recent contributions of Persson and Tabellini (2003) or Gollwitzer Franke and Quintyn (2012) to the theory of development-focused states, their approach does not allow institutional models to be identified, nor does it characterize sources of institutional comparative advantage by means of a close analysis of complementarities between sectoral regulations.

Roland and Jellema (2011) have clustered various institutions for three domains (cultural, political and legal) so as to assess the joint economic effect of various institutions. They test the GDP growth and income per capita correlation with the different principal components identified for each domain at a preliminary stage. Even though they address the joint economic effect of clusters of institutions, they do not then

proceed towards empirically assessing institutional complementarities; namely, the way one institution, or institutional domain, may improve (or reduce) the other one's efficiency. Although their title explicitly refers to clusters of institutions, their approach actually consists in reducing the multidimensionality of each domain into a limited number of orthogonal synthetic indicators.

Pryor (2006, 2008) is closer to our work since he tries to identify varieties of economic systems and their aggregate relationship with various outcomes like culture and polity. Pryor (2008: 548) claims that studying systemic causation imposes a focus shift from the relationship between individual variables or institutions to systems. He goes on to criticize the statistical methods used in analyzing lineal causation for their inability to address the issue of systemic causation, and ultimately argues for an empirical analysis that shows parallelism between systems in different domains. In Pryor (2006), clusters of economic institutions are identified using institutional and policy indicators of the product market, firms and production, labour, government and financial sectors, for a sample of 41 developing countries. Four types of economic systems are identified: *Traditional*, *Labour-oriented*, *Business-oriented* and *Statist*. These four models are distributed across the different world regions: most African countries have traditional systems; Latin-American countries tend to be characterized by labour-oriented systems; Asian economies are mainly business-oriented; and statist systems are to be predominantly found in the Middle East and North African countries. Pryor's study represents the first exploration of developing countries' economic systems via various institutional and outcomes indicators. Yet, the scope of his work is limited by the small size of the country sample (41 countries), which notably excludes former socialist economies in transition to market, and by the method which clusters together individual institutions and policies. Even though they tend to be highly conditioned by the prevalence of regional institutional patterns, Pryor's types of economic systems do echo some of our own models in this book. However, since economic systems are characterized for the year 1990, key emerging countries have been either left untreated (China, Russia and all the countries in transition from socialism) or not robustly classified (India, Brazil), thereby limiting the coverage of the study to an arbitrary and limited set of countries.

Rudra (2008) studied clusters of social welfare institutions for a sample of 30 developing countries. Her primary goal was to assess whether developing countries' welfare efforts tend to privilege commodification or decommodification. She found three types of social welfare model for her limited sample: the first model, called *Productive welfare state*, characterized by high levels of commodification, in which welfare efforts are geared towards promoting market development; the second model, labelled *Protective welfare state*, in which highly decommodified welfare policies aim at protecting selected individuals from the market; and the third, intermediary, *Dual welfare state*. So, even though our work does share a certain number of questions and methods with Rudra's (2008) book, it is much more comprehensive since it includes developed and developing countries, and also addresses the entire institutional system, not just a mere part of it.

2.5   Conclusion

This chapter has overviewed the existing typologies of capitalist systems across two main different methodological approaches: *a priori* ideal-type classification and statistical classification. In the most recent institutionalist literature, various papers have started to place emphasis on *economic systems* as bundles of sectoral institutions. Few of them, however, have explicitly studied the systemic nature of institutional clusters, and even fewer have specifically and comprehensively analyzed developing countries. Even though some authors (Pryor 2006; Rudra 2007) have proposed typologies of developing countries' economic systems, their narrow analytical frame was too narrow to identify the full variety of institutional coalescence within developing countries. Another limitation for that inability is that their empirical approach remains too intuitive, and not backed by a theory of institutional complementarity. Comparative Capitalism scholars have suggestively gone further in that latter direction by establishing regional ideal-types of emerging capitalisms. They have essentially proposed extensions of the OECD models under the form of new ideal-types of emerging regional capitalisms for Eastern Europe

and Latin America. They cannot, therefore, comprehensively address all varieties of developing countries' capitalism.

In this book, we have chosen to study the original forms of capitalisms emerging across developing countries by comparing their mode of institutional governance across seven key sectors (education, labour, competition, finance, social protection, agriculture and environment) that we treat as complementary dimensions of the whole capitalist system. We then examine whether similar sectoral types of institutional governance are observed across our sample of 140 countries, before clustering these countries, so that six types of capitalist systems can be identified over the world. Unlike the different literatures surveyed in the present section, the bottom-up approach we have chosen to implement in this study does not rely on *a priori* classification, or on a few arbitrarily selected single institutions for the task of describing and ranking countries (without really having described their systems). Moreover, we believe that this approach is the one best fitted to tackle the crucial issue of institutional complementarities discussed in the next section. This approach also provides significant opportunities for improving our knowledge of (1) the specific way in which the various institutional sectors of a socioeconomic system actually combine or cluster; (2) the main structural determinants (history, geography, polity) of all these socioeconomic systems; and (3) how these institutional systems translate into economic performance in developing economies. The next chapter more fully describes our methodology and the concepts undergirding it.

References

Acemoglu, D., and J.A. Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. London: Profile Books.

Acemoglu, D., S. Johnson, and J.A. Robinson. 2001. The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review* 91 (3): 1369–1401.

———. 2002. Reversal of Fortune: Geography and Institutions in the Making of the Modem World Income Distribution. *Quarterly Journal of Economics* 117: 1231–1294.

Amable, B. 2003. *The Diversity of Modern Capitalism*. Oxford: Oxford University Press.

Bardhan, P. 2010. *Awakening Giants, Feet of Clay: Assessing the Economic Rise of China and India*. Princeton, NJ: Princeton University Press.

Baumol, J., R. E. Litan, et C. J. Schramm (2007) *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity.* New Haven, CT: Yale University Press.

Becker, U. 2009. *Open Varieties of Capitalism: Continuity, Change and Performance*. Basingstoke: Palgrave Macmillan.

Berr, E., F. Combarnous, and E. Rougier. 2009. Too Much Consensus could be Harmful: Measuring the Implementation of International Financial Institutions Policies and Their Effects on Growth. In *Monetary Policies and Financial Stability*, ed. Louis-Philippe Rochon. Cheltenham: Edward Elgar.

Besley, T., and T. Persson. 2011. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton, NJ: Princeton University Press.

Bohle, D., and B. Greskovits. 2007. Neoliberalism, Embedded Neoliberalism, and Neocorporatism: Paths Towards Transnational Capitalism in Central-Eastern Europe. *West-European Politics* 30 (3): 355–386.

Boyer, R., and J.R. Hollingsworth. 1997. From National Embeddedness to Spatial and Institutional Nestedness. In *Contemporary Capitalism, the Embeddedness of Institutions*, ed. J.R. Hollingsworth and R. Boyer, 433–484. Cambridge: Cambridge University Press.

Braga de Macedo, J., and J. Oliveira Martins. 2008. Growth, Reform Indicators and Policy Complementarities. *Economics of Transition* 16 (2): 141–164.

Cammett, M.C., I. Diwan, A. Richards, and J. Waterbury. 2015. *A Political Economy of the Middle East*. Boulder, CO: Westview Press.

Degenkolb, Nico. 2010. Varieties of Capitalism in Central Eastern Europe—Coordinated, Liberal or Dependent Market Economies? The Institutional Impact of German Foreign Direct Investment in Hungary. MA Dissertation, Central European University.

Djankov, S., R. La Porta, F. López-de-Silane, and A. Shleifer. 2003. The New Comparative Economics. *Journal of Comparative Economics* 31 (4): 595–619.

Drahokoupil, Jan. 2008. *Globalization and the State in Central and Eastern Europe: The Politics of Foreign Direct Investment*. London: Routledge.

Engerman, S. L., and K. L. Sokoloff. 2002. Factor Endowments, Inequality, and Paths of Development in the New World. *NBER Working Paper*, October.

Evans, Peter B. 1979. *The Alliance of Multinational State and Local Capital in Brazil*. Princeton: Princeton University Press.

Evans, P. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton, NJ: Princeton University Press.

Finn, James. 1994. *Freedom in the World: The Annual Survey of Political Rights and Civil Liberties, 1993–1994*. New York: Freedom House.

Freedom House. 2008. *Freedom in the World*. www.freedomhouse.org

Gollwitzer Franke, S., and M. Quintyn. 2012. Institutional Transformations, Polity and Economic Outcomes: Testing the North-Wallis-Weingast Doorsteps Framework. *IMF Working Papers*, WP 12/87. Washington, DC: The International Monetary Fund.

Greif, A. 1992. Institutions and International Trade: Lessons from the Commercial Revolution. *American Economic Review* 82 (2): 128–133.

———. 1993. Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders'Coalition. *American Economic Review* 83 (3): 525–548.

———. 1994. On the Political Foundations of the Late Medieval Commercial Revolution: Genoa During the Twelfth and Thirteenth Centuries. *The Journal of Economic History* 54 (02): 271–287.

Hall, R.E., and C.I. Jones. 1999. Why Some Countries Produce So Much More Output per Workers than Others. *The Quarterly Journal of Economics* 114 (1): 83–116.

Hall, P.A., and D. Soskice. 2001. An Introduction to Varieties of Capitalism. In *Varieties of Capitalism: The Institutional of Foundations of Comparative Advantage*, ed. P.A. Hall and D. Soskice, 1–68. Oxford: Oxford University Press.

Hancké, B., M. Rhodes, and M. Thatcher. 2007. *Beyond Varieties of Capitalism: Conflict, Contradiction and Complementarities in the European Economy*. Oxford: Oxford University Press.

Harada, Yuji, and Hinori Tohyama. 2011. Asian Capitalisms: Institutional Configurations and Firm Heterogeneity. In *Diversity and Transformations of Asian Capitalisms*, ed. R. Boyer, H. Uemura, and A. Isokai, 243–263. London: Routledge.

Hausmann R. 2008. The Other Hand: High Bandwidth Development Policy. *CID Working Paper* No. 179.

Jackson, G., and R. Deeg. 2006. How Many Varieties of Capitalism? Comparing the Comparative Institutional Analyses of Capitalist Diversity. *MPIfG Discussion Paper* No. 06/2.

Kang, David C. 2002. *Crony Capitalism: Corruption and Development in South Korea and the Philippines*. Cambridge: Cambridge University Press.

King, L.P. 2007. Central European Capitalism in Comparative Perspective. In *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementaries in the European Economy*, ed. Bob Hancké, Martin Rhodes, and Mark Thatcher. Oxford: Oxford University Press.

———. 1993. *Political Economy of Policy Reform in Developing Countries*. Cambridge, MA: The MIT Press.

La Porta, R., F. Lopez-de-Silanes, and A. Shleifer. 2008. The Economic Consequences of Legal Origins. *Journal of Economic Literature* 46 (2): 285–332.

Lal, D., and L. Myint. 1996. *The Political Economy of Poverty, Equity and Growth : A Comparative Study*. Oxford: Clarendon Press.

Lane, D. 2005. Emerging Varieties of Capitalism in Former Socialist Societies. *Competition and Change* 9 (3): 227–247.

Lane, David. 2007. Post-State Socialism: A Diversity of Capitalisms? In *Varieties of Capitalism in Post-Communist Countries*, ed. David Lane and Matin Myant. Basingstoke: Palgrave Macmillan.

Lane, David, and Martin Myant, eds. 2007. *Varieties of Capitalism in Post-Communist Countries*. New York: Palgrave Macmillan.

Meisel, N., and J. Ould Aoudia. 2008. L'insaisissable relation entre « bonne gouvernance » et développement. *Revue Economique* 59 (6): 1159–1191.

Molina, O., and M. Rhodes. 2007. The Political Economy of Adjustment in Mixed Market Economies: A Study of Spain and Italy. In *Beyond Varieties of Capitalism*, ed. B. Hancké, M. Rhodes, and M. Thatcher. Oxford: Oxford University Press.

Mykhnenko, V. 2007. Strengths and Weaknesses of Weak Coordination: Economic Institutions, Revealed Comparative Advantages, and Socio-Economic Performance of Mixed Market Economies in Poland and Ukraine. In *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementaries in the European Economy*, ed. Bob Hancké, Martin Rhodes, and Mark Thatcher. Oxford: Oxford University Press.

Nölke, A., and A. Vliegenthart. 2009. Enlarging the Varieties of Capitalism: The Emergence of Dependent Market Economies in East Central Europe. *World Politics* 61: 970–702.

North, D. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

North, D.C., J.J. Wallis, and B.R. Weingast. 2009. *Violence and Social Orders*. Cambridge: Cambridge University Press.

Orru, M., N.W. Biggart, and G.G. Hamilto. 1997. *The Economic Organization of East Asian Capitalism*. Thousand Oaks, CA: Sage.

Persson, T., and G. Tabellini. 2003. *The Economic Effect of Constitutions*. Cambridge, MA: The MIT Press.

Piveteau, Alain, and Eric Rougier. 2011. Le retour en trompe-l'œil de la politique industrielle : L'expert, l'Etat et l'économie. *Revue Tiers Monde* N 208 (4): 177–192.

Pryor, F.L. 2006. Economic Systems in Developing Countries. *Comparative Economic Studies* 48 (1): 77–99.

———. 2008. System as a Causal Force. *Journal of Economic Behavior & Organization* 67 (3): 545–559.

Pryor, F. 2011. Capitalism and Freedom? *Economic systems* 34: 91–110.

Rice, S.E., and S. Patrick. 2008. *Index of State Weakness in the Developing World*. Washington, DC: The Brookings Institution.

Robinson, J. A. 2009. Industrial Policy and Development: A Political Economy Perspective. Mimeo, Harvard University, Department of Government and IQSS.

Rodriguez, F. 2007. Cleaning Up the Kitchen Sink: Growth Empirics When the World is Not Simple. Mimeo, Wesleyan University.

Rodrik, D. 2003. *In Search of Prosperity, Analytic Narratives on Economic Growth*. Princeton, NJ: Princeton University Press.

———. 2008a. Goodbye Washington Consensus, Hello Washington Confusion? *Journal of Economic Literature* XLIV: 969–983.

———. 2008b. *Second-best Institutions*. Cambridge: Harvard University, J. Kennedy School of Law.

Roland, G., and J. Jellema. 2011. Institutional Clusters and Economic Performances. *Journal of Economic Behavior and Organization* 79 (1–2): 108–132.

Rougier, E. 2016. Fire in Cairo: Authoritarian-Redistributive Social Contracts, Structural Change, and the Arab Spring. *World Development* 78: 148–171.

Rudra, N. 2007. Welfare Regimes in Developing Countries: Unique or Universal? *Journal of Politics* 69 (2): 378–396.

———. 2008. *Globalization and the Race to the Bottom in Developing Countries: Who Really Gets Hurt?* Princeton, NJ: Cambridge University Press.

Schneider, B.R. 2009. Hierarchical Market Economies and Varieties of Capitalism in Latin America. *Journal of Latin American Studies* 41 (3): 553–575.

Sgard, J. 2008. Qu'est-ce qu'un pays émergent? In *L'enjeu mondial, les pays émergents*, ed. C. Jaffrelot. Paris: Les Presses de Sciences Po.

Subramanian, A., and D. Roy. 2003. Who can Explain the Mauritian Miracle? Meade, Romer, Sachs, or Rodrik? In *In Search of Prosperity, Analytic Narratives on Economic Growth*, ed. Dani Rodrik. Princeton, NJ: Princeton University Press.

Wade, R. 1990. *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*. Princeton, NJ: Princeton University Press.

Zhang, X., and R. Whitley. 2013. Changing Macro-Structural Varieties of East Asian Capitalism. *Socio-Economic Review* 11 (2): 301–336.

3

Systems, Institutional Complementarities and Politics: Various Methodological Considerations

François Combarnous and Eric Rougier

3.1 Introduction

The main ambition of this book is to analyse the capitalist systems of emerging market and developing countries. We have adopted a methodology that can provide unambiguous answers to the following questions: What do these emerging capitalism models look like? To what extent do they differ from what has been observed for OECD countries? How many different models are there? What are their main institutional and non-institutional characteristics? Do they exhibit significantly different socioeconomic outcomes? What sorts of institutional complementarity underlie these institutional systems? What has been the institutional trajectory of emblematic emerging countries like China, Brazil or South Africa? In order to address all the above questions, we have chosen to

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analyse and cluster the national institutional systems of a large sample of countries, including OECD, emerging and poor developing countries. Our method and results actually challenge the common hypothesis of globalization-led institutional convergence contending that several original models of capitalism have emerged in the developing world. In fact, emerging markets and developing countries' capitalist systems do not necessarily all converge towards European or Anglo-Saxon models of capitalism, with most of the original models we uncover exhibiting particularly strong features of internal consistency or complementarity.

Our study is based on two main assumptions: (1) a capitalist economic system can be described as a system of sector-specific institutions; and (2) the way institutions in these different sectors are articulated determines the nature of their socioeconomic models and, therefore, their performance. More specifically, we analyse how the patterns of institutional governance specific to the different sectors of the capitalist economy—the goods market, the finance and credit sector, labour and production relations, education and training, social protection, agriculture and the environment—relate to one another, and give rise to specific, non-random configurations of capitalism. Our approach aims to be comprehensive, since it includes a wide range of countries at all levels of economic development, and also quantitative, since we gauge the institutional systems' underlying capitalist economies by clustering various institutional indicators within the various constitutive sectoral dimensions of the system. Our work is also comparative, since it systematically analyses the cross-country similarities and differences between national institutional systems described by a specific set of sectoral types of governance.

This chapter first presents our working definition of capitalism as a system of complementary institutions (Section 3.2) and then goes on to expose our method in detail (Section 3.3). Section 3.4 explains how the institutional complementarity assumption, which was originally designed for the stabilized institutional systems of the mature OECD economies, has been adapted to the specific context of developing countries. The seven institutional sectors articulated by each capitalist system are subsequently presented and discussed (Section 3.5), before the political issues necessarily raised by any analysis of institutional systems are addressed in Section 3.6.

3.2   Capitalisms as Institutional Systems: Theoretical Considerations

Economic systems are composed of specialized agents and organizations whose actions are determined by overlapping layers of formal and informal institutions socially designed to reach specific goals (North 1990; North et al. 2008), the most common of which include securing individual property rights, reducing transaction costs and uncertainty and increasing organizational efficiency. Socioeconomic systems, because they are socially and historically conditioned, have understandably adopted different forms in different countries. Institutional diversity has been driven by the long-term historical process of institution-building, by which societies provide themselves with rules and norms that are in full accordance with their dominant social beliefs (North 1990; Aoki 2001). Other factors, whether global (globalized competition, information technological revolution) or local (geography, contingency, polity), have also, obviously, played their part in shaping country-specific forms of capitalism.

All these capitalism variations, however diverse they may be, are based on similar basic elements. The first element refers to capital accumulation guided by profit maximization. Since capital is costly, capitalists strive for resource optimization via technological and organizational innovations. Insofar as capital is privately owned by entrepreneurs or shareholders, private enterprise is inherently related to the accumulation of capital. Hence, institutions like property rights, corporate law or contracts are crucial for both the existence and expansion of capitalist systems. This is certainly one reason why CC scholars have essentially described varieties of capitalism in terms of the national differences in business and industrial relationships governance.

The second basic element of capitalism is the central role played by markets in allocating the means of production (labour and capital) and their output (goods and services) through the channel of market prices. Market mechanisms increase social utility, since they govern capital and labour movement from low to high private return activities. All privately owned assets, such as consumption and capital goods or labour, can be sold on markets, with transaction costs increasing due to information search or

contract administration (North 1990). Market transactions need, therefore, to be efficiently governed so that transaction costs can be reduced. The mechanisms of trade governance remain local, and essentially relation- or reputation-based when markets are limited to arm's length trade. Economic sophistication and growing asset specificity progressively require more formalized and centralized institutions—like property rights or contract laws, employer–employee bargaining rules, homogeneous land use or product market regulations—to be progressively designed and enforced in order to limit the likely increase in transaction costs (North 1990; Williamson 2000; Aoki and Hayami 2001; Greif 2005).[1]

The third element of capitalism concerns the conflict over economic resources between social groups differentiated by their relation to capital or productive resources and, therefore, by the benefits they draw from the system. This sociopolitical conflict conditions institutional change (Amable 2003; Acemoglu et al. 2005). Hence, institutions that can attenuate such distributive conflicts are also required to support capitalism expansion over the long run (Rodrik 2007, 2008; North et al. 2008). In developing economies, however, the poorest social groups are generally unable to embark on struggles for institutional change, both because of time and resource limitations and collective action problems (Bardhan 2005). So although social conflict certainly exists in developing countries, it does not automatically translate into institutional change.

One crucial implicit hypothesis behind CC, and our work in this book, is that the coherence of the various national models of capitalism can be assessed by analyzing their institutional system as a system of sectoral types of institutional governance (Amable 2003). Capitalist systems are therefore analysed as nation-specific systems of specialized institutions supporting production and income distribution, via market or within-organizations exchange. By a system of specialized institutions, we mean the set of interrelated institutions defining the symmetric set of interrelated incentives faced by individual or collective behaviour in the different sectors of the economic system. Put differently, we consider

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[1] In low income economies with a weak State, the frequent failure of centrally-enforced mechanisms paves the way for the development of more informal governance mechanisms, based on kinship, network and personal relations, as shown by Fafchamps (2004) for Africa, or Jütting et al. (2007) for various dimensions of institutional governance.

that an economic system can be typified by the form taken by its institutions and, more importantly, by their pattern of interaction within and across such different socioeconomic sectors as the labour market, production and trade in goods or finance.[2] Corporations and the state are implicitly accounted for in this analysis as organizations following their own objective, but also as actors of institutional enforcement and change. Corporations organize their activity by defining internal and inter-firm rules, under the shadow of corporate and social law. As for the state, it is the central actor of institutional enforcement, public goods provision and control of violence, with these three elements coalescing to sustain economic development (Besley and Persson 2011).

In the present book, capitalist systems are fundamentally analysed as sets of institutions or regulations reflecting the dominant type of governance of the various sectors,[3] with the articulation of specialized institutions within and between the different sectors determining the degree of internal consistency and, possibly, the efficiency of the whole system. Patterns of institutional articulation across the different sectors of the capitalist system have, accordingly, received great attention from CC scholars who fundamentally define varieties of capitalism as alternative sets of complementary sectoral institutions. Two institutions are considered as complementary if the presence/efficiency of one increases the returns/efficiency of the other (Hall and Soskice 2001: 17).[4] Consequently, a particular type of coordination in one sphere of the economy is assumed to develop complementary practices in other spheres as well, with institutional

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[2] In line with Pryor (2010), since all the economic policies and their socioeconomic consequences are considered as outcomes of the institutional system, they have not therefore been used in the identification stage of our work. However, once institutional information has been clustered, thereby allowing institutional systems to be clearly identified, outcome variables have been introduced, at a second stage, to further characterize and compare these systems.

[3] There is no consensus in CC literature about the exact number of sectors or domains (Jackson and Deeg 2006), even though product market, capital-labor relationships and financial regulation are generally considered as core institutional sectors.

[4] More formally, if the difference in utility $U(x')-U(x'')$ generated by two alternative institutions, x' and x'', increases for all actors in domain X when z', rather than z'', prevails in domain Z, and vice-versa, then x' and z' (as well as x'' and z'') complement each other, and constitute alternative equilibrium combinations (Aoki 2001). For an extensive survey of the literature on institutional complementarities for OECD countries, see Amable (2003). For an in-depth account of all the notions of institutional complementarity, see Aoki (2001, 2005).

reform in one sector tending to snowball into changes in other sectors (Hall and Soskice 2001; Amable 2003).[5] One illustration of this could be the partial liberalization of the Chinese goods market. This was first confined to an extraterritorial area because any change towards private property rights and market coordination throughout the whole of China would have led to massive changes in all the other sectoral dimensions. A more ambitious liberalization scheme would have entailed finance shifting towards a more decentralized and thus uncontrolled, mode of organization. Unsurprisingly, the Chinese Communist party's political resistance to such a complementarity-driven institutional move towards market-based coordination was then so strong that the Party went on to invent a totally original system of economic decision and investment financing decentralization, Town Village Enterprises (TVEs), that allowed the survival of collective property rights and state control over investment and production, two modes of economic governance standing high in the Chinese institutional hierarchy (Xu 2011). Complementarity is thus a mechanism of "reciprocal reinforcement" by which "the existence of one institution provokes that of another, which in turn strengthens the first, and so on" (Crouch et al. 2005: 362).[6]

Institutional complementarity has also been described as a mechanism of functional interdependence by which institutions of certain different sectors affect the outcomes or utility of the whole system (Jackson and Deeg 2006). Studying institutional systems would, therefore, entail addressing mechanisms of systemic causation. In the standard one-dimensional causation mechanism, isolated characteristics in one institutional sector determine specific outcomes in that and the other sectors. In the systemic causation mechanism, it is the clustering of institutions of the different system sectors that generates whole system performance.[7] For instance, flexible

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[5] For a criticism of this conception, which may have led most CC scholars to adopt a reductionist vision of institutional change, see Becker (2009).

[6] This systemic property has also been called supermodularity (Milgrom and Roberts 1990; Topkis, 1998).

[7] Pryor (2008, 2010) develop systemic logic even further, claiming that "it is not particular characteristics in domain X that determine any given system in domain Y, and it is not a particular system in domain X that determines any particular characteristic in domain Y. Rather, it is a particular system in domain X that causes a particular system in domain Y" (Pryor 2008: 546). In order to consistently address cumulative causality, he accordingly compares the country composition of institutional clusters with that of economic outcome clusters.

labour markets allocate labour more efficiently when they are articulated with an educative system delivering generic skill formation, while the existence of flexible labour markets increases the relative returns to generic skills. Equally, a deregulated labour market is more efficient in stimulating growth and productivity when it is associated with a deregulated product market and a market-based financing system (Hall and Soskice 2001; Amable 2003).[8] At the aggregate level at which our work is situated, complementarity therefore implies that one institutional sector's own mode of regulation is considered in relation to all other sectors and their impact on economic performance has to be assessed at system level. Such systemic causation issues are empirically addressed in Part III of this book, with our different varieties of capitalist systems being characterized and compared according to sets of performance and determinant indicators.

Taken together, institutions that are complementary across the different sectors of the economic system are expected to impact choices and outcomes in a similar direction. However, institutional complementarity does not necessarily imply institutional isomorphism. Put differently, complementary institutions are not necessarily based on a common principle or logic (Aoki 2001; Amable 2003). Excessive focus on institutional isomorphism could even lead institutional comparative analysis to adopt ideal-typical or one-dimensional approaches, thereby neglecting the complex hybridized structure of most real world systems (Crouch et al. 2005). Again, Chinese TVEs provide a good illustration of economic organizations, and their related rules, inspired by a centralized and relation-based political culture (collective ownership), being successfully associated with free market institutions creating incentives to increase productivity (Qian 2003). Such a heterodox hybridization of otherwise rival institutions has effectively produced the incentives ordinarily generated by private property rights, without the institutions of collective property being reformed until recent years.[9]

Now that our main object—capitalist systems defined as sets of complementary institutions—has been clarified, especially in connection

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[8] The complementarity assumption has received empirical support by cross-country enconometric studies. For exemple, deregulated product and labour markets have complementary positive effects on growth and innovations, as demonstrated by Aghion et al. (2008) and Fiori et al. (2007).

[9] That system, nevertheless, had to change and adapt when it became progressively inappropriate with respect to the Chinese economy's changing needs (Xu 2011).

with CC literature, it is time to present the general architecture of our empirical approach.

3.3 The Seven Sectors of Institutional Systems

As explained above, our methodological approach is inspired by a theoretical assumption that is inspired by the CC literature. The CC approach relies on the identification of a set of institutional sectors whose modes of governance and interconnection differ from one country to another. All the institutional domain governance mechanisms coalesce in a more or less complementary fashion, eventually shaping an overall logic of systemic governance. The CC approach generally consists of *a priori* defining such ideal types of systemic governance, notably by describing their internal institutional complementarity properties.

As shown in Table 3.1, CC generally describes the governance mechanism of each institutional domain by the opposition of two or more ideal-typical models or patterns. These modes are subsequently articulated across the different institutional sectors, thereby forming alternative models of capitalism that are characterized by different types of institutional comparative advantage and economic performance (Hall and Soskice 2001; Amable 2003).

Table 3.2 reports the institutional sectors that we have selected for our comparative analysis of emerging forms of capitalism and the original typologies of sectoral modes of governance that we have identified on our comprehensive sample of 140 OECD, emerging market and developing countries. The institutional sectors that are constitutive of developing countries' capitalist systems correspond to the five pivotal institutional sectors (labour relations, product market regulation, education and training, social protection and finance) commonly used by CC for studying varieties of mature capitalism (Amable 2003).[10] Those five dimensions

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[10] There is no such thing as a definitive list of the institutional domains in Comparative Capitalism literature. For example, the role of state's direct intervention remains subject to debate: has it to be analysed as an institutional domain in its own way, or as a transversal component of the institutional system? By the same token, there is uncertainty as regards the optimal degree of disaggregation

Table 3.1 Institutional sectors in mature capitalist economies (adapted from Amable 2003 and Jackson and Deeg 2006)

Institutional sector	Representative typology	Examples of performance effects
Corporate governance	Insider/Outsider or Shareholder/Stakeholder	Firm strategy; income distribution; skills; investment; innovation
Inter-firm relations	Arm's length relation/Obligational relation	Cooperation and competition; corporate governance; innovation
Work organization	Fordism/Flexible specialization/Diversified quality production	Business strategies; industrial relations
Industrial relations	Conflictarian/Pluralist/Corporatist	Internal vs. external labour market flexibility; wage levels; unemployment
Product market[a]	*Liberal market/Regulated markets/Governed outward-oriented*	Competition; competitiveness; innovation; quality; attractiveness
Labour–wage nexus[a]	*Market-based flexible/Coordinated/Regulated*	Internal vs. external labour market flexibility; wage levels; unemployment
Financial systems	*Market-based/Bank-based/Bank-based with foreign banks*	Investment pattern; corporate governance
Education and skill creation	Generic/Specialized Universal/Vocational *Competitive/Private/Public/Weak*	Income distribution; work organization; innovation; industrial relations; firms' strategy
Welfare and social protection	Liberal/Conservative/Social Democratic *Liberal/Limited welfare/Corporatist/Universalist*	Labour market participation; patterns of savings and investment; organization of labour unions

[a]Additions to the table by Jackson and Deeg (2006); the additions are taken from Amable (2003); the institutional dimensions that are explicitly studied by Amable (2003), as well as the corresponding typology of sectoral models of governance, are reported in italics

are considered as pivotal sectors of any capitalist system by CC literature as shown by Table 3.1. They cover both production and distribution issues, and they concern both private and public actors. A majority of

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within each "domain", with, for example, institutional domains like labour or education being frequently aggregated into one single institutional dimension (Jackson and Deeg 2006).

Table 3.2 Our representative typology of governance models by institutional sector[a]

Institutional sector	Our typology
Financial system	*Mature market/Embryonic/Intermediated (repressed)/Idiosyncratic*
Product market	*Liberalized deregulated/Export-oriented/Statist partially liberalized/Statist protective/ Idiosyncratic*
Wage–labour and production relation nexus	*Coordinated/Liberal/Paternalistic/Informal/ Idiosyncratic*
Skill creation and education system	*Universal/Upgrading export-oriented/Neglected/ Idiosyncratic*
Social protection and welfare state	*Decommodified/Liberal/Informal (remittance-based)/Social insecurity/Idiosyncratic*
Agriculture	*Modern formalized/Dualistic/Traditional/ Idiosyncratic*
Environment	*Effectively-governed/Biodiversity-focused/ Weakly-governed/Idiosyncratic*

[a]The content and meaning of each sectoral typology will be explained and discussed with great detail in each corresponding chapter

CC studies have been chiefly concerned by the differences of corporate, inter-firm and industrial relations governance. Even though the labour and product markets are considered as the core sectors of the capitalist system, they are supported by the welfare, education and finance sectors. As for the welfare sector, it subsumes the institutions of welfare states that are related to health, retirement and unemployment transfers, and, in the case of developing countries, the private transfer logic that substitute for a failing welfare state.

The second columns of Tables 3.1 and 3.2 respectively report the main modes of sectoral governance that were identified by CC literature for OECD capitalisms and by our analysis in this book. As shown in the third column of Table 3.2, our representative typology, referring to both developed and developing countries' capitalisms, fairly differs from those exclusively concerning developed countries. New types of governance have been identified for the two institutional sectors, agriculture and environment, that have been added in our work and are not considered by OECD typologies.

The introduction of two more original dimensions, agriculture and the environment, needs to be justified. Agriculture is still the dominant sector

in many developing countries. As explained in Chap. 9, the agricultural sector's institutions governing land use and contracts between farmers can be very heterogeneous between and often within developing countries. In many developing countries, they still have a crucial influence on livelihoods for a large part of the population because they condition the level and stability of rural incomes. But the institutions governing land ownership and use also influence the political economy of human capital investment and structural change as shown by Galor et al. (2009), with more concentrated land ownership being associated with lower investment in education and subsequent growth. As for the environment, we claim that natural resources are a crucial dimension of developing countries' socioeconomic systems, insofar as most of them have strong natural resource endowments. Environmental regulations are a crucial source of institutional differentiation since they can be geared, in some developing countries, towards natural resource exploitation, or, conversely, in other countries, towards environmental conservation.

3.4 Adapting Institutional Complementarity to Developing Countries: *De jure* and *De facto* Complementarity

As explained in the two previous sections, the institutional complementarity theory certainly constitutes the theoretical foundation of our empirical research in this book. In opposition with the CC approach of OECD capitalisms, however, we could not start the present study of developing countries' capitalist systems by *a priori* defining ideal types based on fully-fledged models of complementarity. As discussed in Chap. 2, there have been too few prior works, either theoretical or empirical, on developing countries' institutional complementarities that could have informed such an ideal-typical typology. Moreover, dealing with institutional design in developing economies, typically afflicted by policy and market failures, would require a second-best setting in which no institutional form should be condemned as being unable to achieve a socially desired goal or function (Rodrik 2003, 2008). Since many institutional settings might be considered as favourable to economic development,

provided they manage to provide the correctly balanced mix of economic incentives and political support needed to ensure expansion of the economic system, we needed to implement an "agnostic" approach. Our characterization of developing countries' capitalist systems had to rely, therefore, on a flexible notion of complementarity, one which is, in fact, closer to the idea of institutional coalescence. We consider throughout the book that observed sets of coexisting institutions might, in some cases, be self-reinforced because they present elements of complementarity reflected by good economic performance. Rather than starting from a definition *a priori* of complementary institutions, we have preferred looking at the institutions that tend to be regularly observed together across developing countries. Complementarities, therefore, emerge from the empirical analysis of institutional coalescences, before they can be justified or explained *ex post*.

Of course, the observed sets of coexisting institutions may also reflect a complex combination of domestic sources of influence, like cultural traits or political critical junctures, and external influence, like colonization or structural adjustment, that could have led to the diffusion of standardized hybrid systems across developing countries. Two types of sectoral governance are not necessarily complementary because they tend to be observed for a sufficiently large number of countries. In fact, they may all be submitted to political economies similarly conducive to this persistent and possibly socially inefficient configuration. Some of them can show signs of efficiency and internal consistency whereas others may finally be inefficient, but persistent because they serve elites' vested interests. Truly assessing their degree of complementarity would therefore require measuring the average level of economic and social performance of each model, or of each regularly observed institutional configuration. This is precisely what we do in Chap. 12 in Part III.

The general set-up of CC, consisting of defining ideal-types delineated by typical institutional complementarities, needs to be adapted to developing countries, so that the models of emerging capitalism can be generated and characterized, *ex post*, as the outcome of a prior empirical analysis. More specifically, we argue later in in this book (Chap. 3) that the distinction between *de facto* and *de jure* complementarity can be useful in analyzing developing countries' capitalisms and the *a priori*

undetermined institutional efficiency. We call *de jure* complementarity the form of complementarity that can be expected on purely theoretical grounds. For example, a flexible labour market is assumed to be complementary to a competitive product market, since product market firms' entry and exit will be facilitated by higher levels of labour and capital mobility (Hall and Soskice 2001; Amable 2003). Conversely, we define *de facto* complementarity as forms of institutional efficiency that do not have *a priori* theoretical justification. This form of complementarity may, instead, appear *ex post*, with institutions that were not initially supposed to be specifically complementary, delivering unexpected positive effects.

China is the perfect example of a country which has associated market institutions in product markets, and statist forms of regulation in the labour and finance sectors, although the positive development effects of such a heterodox set of institutions cannot be justified by mainstream economic theory. China's successful economic transition has been explained by the economic incentives delivered by a combination of pro-market (FDI incentives) and statist (collective property) institutions that simultaneously allowed for a massive rise in productive investment as well as the active support of local political elites (Qian 2003). The fundamentally dual nature of the Chinese institutional system, described by Rodrik (2010, 41) as "a market system on top of a heavily regulated state sector", has exhibited strong *de facto* complementarities, with this hybrid system proving highly efficient in organizing the transition from a centralized to a capitalist industrialized economy (Lau et al. 2001). China is in no way an isolated case, since Rodrik (2007, 2010: 41) reports similar unconventional institutional configurations for South Korea in the 1960s and 1970s, for Mauritius during the 1970s and 1980s, as well as for India during the 1980s and 1990s.

Conversely, the articulation of the best-fitted institutions supposed to be *de jure* complementary; that is to say, theoretically complementary, does not necessarily imply that institutional systems work in a fully efficient way. From the mid-eighties to the late nineties, the Washington Consensus set of institutional reforms was seen as an internally coherent policy mix of a first-best type that should rapidly trigger economic growth and restore financial balances. Wholesale reforms, all inspired by the common principle of "getting prices right" on the different markets,

were rarely implemented and, when they were, they did not produce the expected economic benefits (Stiglitz 2003; Berr et al. 2009). Neo-institutionalist scholars then came to argue that reform efficiency could be improved by getting governance right (Rodrik 2001). Their theoretical set-up remained, however, strongly inspired by a first-best functionalist logic: each specific and isolated institution is supposed to be designed *ex ante* to minimize transaction costs for the sake of collective efficiency. Since the functionalist approach considers that each single function or goal should be assumed by only one type of institutional form—the best-fitted one—whatever the national context, conforming all developing countries' systems to the mix of institutions featured by the institutional frontier, that is the best performing national system in terms of institutional outcomes,[11] has become a priority goal. The main justification for claiming that one given institutional form or configuration is better fitted than the others has been drawn indifferently from economic theory and from the observation of an international benchmark. According to this *de jure* approach to institutional fitness of shape, minimum level of enforcement of this best-fitted institution would automatically engender the highest expected economic outcome. Obviously, there would be no room for institutional experimentation of possible *de facto* complementarities in this context.

Proponents of institutional pragmatism and piecemeal reforms for developing countries have strongly contested this "one best way" vision on several crucial grounds. First, there is huge confusion about the correct set of alleged optimal policies to be implemented by developing countries. Naim (1999) or Rodrik (2006) have, for example, underlined the huge confusion characterizing the theoretical foundations of the Washington Consensus, which has consistently provided developing countries with an allegedly coherent mix of institutional reforms over 20 years. Second, it is difficult for developing countries to use wholesale reforms to set up fully consistent and efficient copycats of mature capitalisms' institutional systems. This is because very few developing countries have the necessary administrative and legal capacity to implement such a comprehensive set of reforms (Andrews 2013). Equally, by disturbing

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[11] Thus defined, the institutional frontier is generally the US, and sometimes Switzerland.

prevailing sociopolitical equilibria, the institutional reforms required to modify existing institutions and regulations may trigger considerable resistance. Since the observed benefits of the new system may well prove insufficient to balance the heavy social and economic cost raised by the dramatic change in rules, the whole reform process might eventually be rejected.

Hence, even though their institutional components do not seem to be *de jure* complementary, certain, apparently inconsistent institutional systems may well correspond to efficient institutional systems for the simple reason that they are conducive to socioeconomic development. In this case, we could talk of *de facto* complementary institutions, in the sense that they are not universally complementary, but locally they are, both in time and space.[12]

Additionally, the long-term persistence of a given institutional configuration does not imply that the system is necessarily *de jure* or *de facto* complementary and fully efficient. Nölke and Vliegenthart (2009) contend that the stability of social preferences and path-dependency may constitute a first explanation of long-run institutional persistence of, sometimes inefficient, institutions. They notably report Esping-Andersen (1990) who argue that the variety of post-war welfare state "regimes" was promoted by the then emerging middle classes, which had different values and cultural norms concerning the style and extent of state intervention in social life.[13] Nölke and Vliegenthart (2009), however, advance a second explanation, particularly appropriate for developing economies. They argue that the existence of self-reinforcing clusters of institutions may cause the persistence of inefficient institutional systems, without abandoning the assumption of complementarity. Institutional externalities may reinforce or contradict one another, thereby generating distinct institutional clusters at equilibrium. Clusters of institutions

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[12] It is worth remarking that *de facto* complementarities are implicit in the series of country-case studies brought together in Rodrik (2003). Each of those studies, as Dani Rodrik emphasizes in his introduction to the book, underlines the pragmatic and adaptative nature of the selected developing countries' trajectories of institutional change during the 1980s and 1990s.

[13] Likewise, Greif (2005) and Kuran (2011) have explained how religious culture has durably influenced the design of economic and trade institutions in the Islamic world and the Jewish traders' community, with long run detrimental effects on those communities' trajectories of economic development.

might, consequently, be rather stable over time and only change very slowly, even though they should have been rejected by rational agents because their socioeconomic efficiency is low.

Hence, a second adaptation of the institutional complementarity theory to developing countries consists in opposing those forms of complementarity that are conducive to economic development and to high-level outcomes, and those that are akin to stable low-level equilibria where strongly consistent institutional systems will maintain poverty. We call the former progressive and the latter regressive complementarities.

As an illustration, some poor countries actually show sets of strongly complementary and self-reinforcing institutions—predatory state, low property rights protection, limited access to judiciary, education and political or economic organizations, repressed finance—that are very similar to the natural state ideal-type described in North et al. (2008) as a typical form of politico-economic system preliminary to modern states. These authors explain how the patron–client political equilibrium typical of the natural state tends to persist in poor countries, even though this stable equilibrium eventually hinders economic development. North et al. (2008) describe natural states as highly consistent and complementary sets of institutions generally showing efficiency in limiting the scope of sociopolitical and economic violence. However, their effect on economic development is less positive, since natural states eventually tend to trap the economy into a persistent low- or intermediary-level equilibrium. Here, *de jure* stable and consistent institutional configurations may prompt regressive mechanisms strongly adverse to economic development.

Similarly, institutional inconsistencies, that is to say, the persistence, in certain sectors, of institutions that are not complementary to the rest of the system, can be explained by the fact that those institutions have certain positive welfare effects, at least for some social groups. In non-democratic developing countries, even more than in mature democracies, sub-optimal institutional configurations may well survive because they are culturally more acceptable, or because they provide distributive benefits to the dominant sociopolitical coalitions. If slow-moving institutions are often those that are strongly conditioned by culture (Kuran 2011; Roland 2004), they can also persist, independently of their economic

consequences, because they serve the interest of dominant sociopolitical coalitions (Acemoglu and Robinson 2006, 2012; Amable 2003).[14] In this context, some core institutions can reinforce one another in ways that are supportive of the political equilibrium of the system, even though those institutions are inefficient. Schneider (2009), for example, has documented the survival, in Latin America, of an intermediary system, the hierarchical market economy (HME), combining features from the coordinated market economy (CME) and liberal market economy (LME) (for example, externally liberalized economies and highly-regulated and protected labour markets) in an inefficient way, albeit benefitting from the support of strong sociopolitical coalitions. This combination of contradictory regulations has actually introduced strong hierarchical links between and within firms, supported by transnational corporations (TNCs) and big domestic companies. As a consequence, increasing labour market dualism, supported by unionized TNCs and big national companies' workers, has generated high unemployment levels throughout the Latin American region. *De facto* institutional complementarities, therefore, could well turn into a regressive process whereby the presence of one institution (labour market rigidity) reinforces the adverse economic effect of another one (external liberalization), whilst also strengthening sociopolitical support for the entire system, however socially suboptimal.

By contrast, some developing countries have, during the last two decades, been busy introducing a high dose of experimentation into their institutional reform-making process (Ahrens and Jünemann 2009). Their institutional sets were neither designed nor implemented to be complementary *ex ante*. Speaking of developed countries' institutional systems, Crouch et al. (2005) underline that complementarity is in fact often discovered, *ex post*, at a later stage in time. A similar observation is made for developing countries by Rodrik (2007, 2010) who speaks of institutional reforms as a process of experimentation of heterodox sets of institutions, with the term "heterodox" suggesting that the observed complementarities are not based on standard theoretical grounds. Country case studies

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[14]According to Boyer (2011) institutional persistence is either explained by the higher economic performance induced by the institutional complementarities, or by the sociopolitical process of institutional hierarchy by which an institutional configuration persists because it is favourable to the dominant sociopolitical groups, whatever is its economic efficiency.

and historical records show that developing countries' institutional systems articulate sectoral regulations that are the product of multi-layered processes of serendipity, incremental adjustment, politically oriented reforms and globalization-led hybridization. Therefore, observed sectoral institutional arrangements should not be considered as being necessarily the most efficient, but, instead, as the result of a complex and open process of incremental and highly contingent institution building and formalization. Put differently, institutional complementarity is not the outcome of a centralized design but is the result of a constant process of discovery and incremental adjustment that introduces a great deal of slackness in economic system design (Crouch et al. 2005: 363, 366). In his most recent papers, Rodrik (2010) suggests that developing countries might make more intensive use of experimentation to test the institutions and regulations that best match their own national conditions. He even argues that assembling orthodox and unorthodox institutions or regulations, as China has done during the last three decades, has proven efficient to solve incrementally the most binding constraints to economic development. This amounts to saying that setting up systems of non-complementary institutions in the developing countries context may bring about higher social benefits than trying to directly emulate fully complementary Western institutional configurations, like the CME or LME, or else to implement the full package of reforms coined by the Washington Consensus.

Table 3.3 summarizes the argument by combining of *de jure* and *de facto* institutional complementarity, on the one side, and their observed economic efficiency, namely whether they are progressive or regressive, on the other side. Each combination is illustrated by examples drawn from the present section.

Table 3.3 *De facto* and *de jure* complementarities

	De jure	*De facto*
Progressive	*LME*, *CME*	Experimentation *Chinese market socialism*
Regressive	Washington Consensus Patron–client systems Natural state	Reforms as signals inconsistencies *HME*

3.5   The Original Two-Tier Methodological Approach

Our empirical approach of institutional complementarity is closely connected with that of Amable (2003). We, too, use macro-statistical indicators to first study clusters of institutions at sector level, thereby identifying types of sectoral governance. The difference between our approaches lies at the second stage of identification of capitalist models, since we cluster these sectoral models, whereas Amable (2003) clusters countries across sectors by using individual indicators and introducing each sector one at a time.[15] The original two-tier methodology we use allows more complexity to be introduced and, accordingly, more variations in the description of the capitalist systems, especially in the case of emerging market economies.[16]

The technical details of our methodology can be found in the Technical Appendix joint to this chapter. The first tier corresponds to the identification of varieties of institutional governance for each of the seven sectors selected to typify capitalist systems: labour, social protection, finance, product market competition, education, agriculture and the environment. These varieties are assessed by a series of quantitative indicators covering the 2006–2010 period that are treated by principal component analysis (PCA) together with mixed clustering techniques that combine hierarchical cluster analysis (HCA) with k-means iterations in order to consolidate the initial results. In so doing, we identify, for each of the seven sectors enunciated above, three to five markedly different types of institutional governance. The first output of our work and, incidentally, of Part II is, therefore, the identification, for each country, of a vector of seven types of organization and regulation concerning the labour, competition, social protection, education, finance, agriculture and environment sectors.[17] As shown in Fig. 3.1, first stage's final output is made up of 140 country vectors of seven types of sectoral governance.

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[15] As already mentioned, an additional difference is that we specifically address emerging forms of capitalism, even though OECD countries are included in our sample.

[16] Our approach comes in for the same sort of criticism as many CC typologies, which generally consist in "typologies of typologies", namely assemblages of institutional domain typologies (Jackson and Deeg 2006).

[17] Unlike most CC authors, however, we have chosen not to examine in detail what concerns inter-firm mechanisms of coordination, since they do not make up the essential focus of our analysis.

From basic initial quantitative information...
(81 variables pertaining to 7 dimensions)

... to models of sectoral governance
(31 sub-profiles)

Labour and social relations
Cross-sectional database → PCA HCA / k-means → LSR$_1$, LSR$_2$, LSR$_3$, LSR$_4$, LSR$_5$

Education
Cross-sectional database → PCA HCA / k-means → EDU$_1$, EDU$_2$, EDU$_3$, EDU$_4$

Product market
Cross-sectional database → PCA HCA / k-means → PRM$_1$, PRM$_2$, PRM$_3$, PRM$_4$, PRM$_5$

Social protection
Cross-sectional database → PCA HCA / k-means → SOC$_1$, SOC$_2$, SOC$_3$, SOC$_4$, SOC$_5$

Financial systems
Cross-sectional database → PCA HCA / k-means → FIN$_1$, FIN$_2$, FIN$_3$, FIN$_4$

Agriculture
Cross-sectional database → PCA HCA / k-means → AGR$_1$, AGR$_2$, AGR$_3$, AGR$_4$

Environmental regulation
Cross-sectional database → PCA HCA / k-means → ENV$_1$, ENV$_2$, ENV$_3$, ENV$_4$

AN ORIGINAL CROSS-SECTIONAL NOMINAL DATABASE
(140 countries / 7 models of sectoral governance)

	Labour and social relations	Education	Product market	Social protection	Financial systems	Agriculture	Environmental regulation
Albania	LSR$_2$	EDU$_4$	PRM$_2$	SOC$_5$	FIN$_4$	AGR$_4$	ENV$_2$
Algeria	LSR$_5$	EDU$_1$	PRM$_2$	SOC$_5$	FIN$_2$	AGR$_3$	ENV$_4$
:	:	:	:	:	:	:	:
Zimbabwe	LSR$_3$	EDU$_1$	AGR$_5$	SOC$_3$	FIN$_4$	AGR$_2$	ENV$_3$

Fig. 3.1 Output of the first stage

Some of the sectoral types of governance discussed in Part II, like the bank-oriented type of finance or the liberalized type of competition regime, are rather well known. Others, like the remittance-based informal type of social protection or the export-oriented type of education, are new. The stake, in the second stage of our approach, is to understand how these different sectoral types actually match, at country level, to form singular institutional systems supporting the operation of capitalist markets and organizations. Since all these observed institutional systems govern such typical capitalism attributes as private property, market

Nor will we systematically analyse the socio-political compromises that support each national variation of capitalism system. Our essential goal is to obtain a picture of the similarities and differences across a large sample of heterogeneous countries in what concerns their socioeconomic institutions and regulations. Although this is done without considering the political economy of each model, political economies will nonetheless be addressed explicitly in Chap. 14 by a comparative analysis of institutional trajectories of a sample of emerging countries.

coordination and labour-capital relationships, they can be considered as good characterizations of the different models of capitalism.

The second tier of our analysis thus consists in clustering the original nominal cross-sectional database made up of 140 country-vectors of seven types of sectoral governance that was generated by the first tier, as described in Fig. 3.1, into a smaller number of capitalist system varieties, by using a mixed classification procedure similar to that used in the first tier of the analysis. More specifically, countries are clustered according to similarities and differences in their set of sectoral institutions. In other words, we study the cross-country associations, across all seven dimensions of analysis and all 140 countries, of the types of sectoral governance that were identified, at the first tier, for each country.[18] The second-tier of the methodology therefore reduces the extreme diversity in the observed combination of the different sectoral modes of governance into varieties of capitalist socioeconomic systems. Each variety can be characterized by a typical articulation of models of sectoral governance; namely, by a specific pattern of inter-sectoral institutional complementarities.

Hence, each cluster brings together countries showing common traits, which are different from the commonalities observed for the other groups. As we had done for the first tier, and for the same reason, we created a supplementary cluster bringing together countries whose position in the new multidimensional space was not clear-cut because they were either (i) *hybrid* institutional configurations or (ii) mostly composed of *idiosyncratic* sectoral institutional types. We named this group of countries the "*Hybrid-Idiosyncratic*" group. The six identified "models of capitalism" could finally be characterized by their dominant institutional configurations, a mix of the seven sectoral modes of governance.

It is worth insisting that, unlike in some recent attempts by Pryor (2008) or Roland and Jellema (2011) at clustering institutions, com-

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[18] The clustering process consists in identifying the set of groups that minimize intra-group and maximize inter-group heterogeneity. The method assigns to a given group the countries presenting common traits, which also differ from the commonalities observed for the other groups of countries. Two countries exhibiting strictly similar sets of area-related institutional models are clustered together.

plementarities are analysed at the two different levels of analysis in this study. Complementarities are first observed at sector level. In order to first identify the various models of sectoral governance, we analyse how sector-specific individual institutions coalesce for each sector of the whole institutional system. Then, complementarities are investigated at system level, with statistical coalescence between the different types of sectoral governance being considered at a second stage. It is worth emphasizing that this method enables avoiding the identification of false complementarities when all institutional variables are analysed together, without considering complementarities within each sector of the capitalist system. For example, there are no theoretical grounds to believe that the inequality of land holdings is complementary to shareholder rights or the protection of patent rights, as it could be the case in Pryor (2008, 2010) or Roland and Jellema (2011) who cluster individual institutions of different dimensions. Analysing complementarities between the various institutions governing the agricultural sector makes sense insofar as these institutions have been designed and associated to reach common sector-specific goals like securing land ownership or organizing commodity markets.

We contend that institutional complementarities might, therefore, occur at two levels. First, at sector level, the individual institutions governing a given sector of the economy may be more or less complementary and, therefore, may or may not reach sector-related goals. Second, at system level, the different models of sectoral governance may have more or less complementary effects on the whole system aggregate socioeconomic performance. A concentred land ownership may be complementary to limited access to education as shown by Galor et al. (2009). Equally, a rigid regulation of the labour market is likely to be strongly complementary to a heavily state-regulated product market, and weakly complementary to a liberalized financial market.

Insofar as complementarities are assumed to have more relevance across all our seven institutional sectors, this leads us to identify varieties of models of capitalism by observing how the different patterns of sectoral

governance coalesce at the system level. Moreover, such an approach to complementarities allows describing each national institutional system as a specific vector of sectoral governance models. We can therefore detect, at country level, complementary institutional patterns, namely, sectoral regulations that show network externalities; as well as regressive institutional configurations, that is to say, sectoral regulations that should not be articulated since they deliver contradictory incentives to economic agents. In both cases, the economic effects of those apparently contradictory institutional patterns are worth being observed, especially when they are positive. In other words, our approach opens the possibility that economically efficient unorthodox patterns of institutional regulation are identified, with important consequences for institutional reform. These variations of the institutional complementarity assumption are further discussed and elaborated in the next section.

3.6   Politics

Politics has gained increasing consideration in both CC and NIE literature. The latter has tended to restrict its scope to the analysis of the economic effect of alternative political types, like democracy vs. autocracy, presidential regime vs. representative regime (Persson and Tabellini 2003) or extractive vs. inclusive institutions (Acemoglu and Robinson 2012). More interestingly, many typologies of capitalist models in the CC literature implicitly suggest a kind of institutional hierarchy whereby one of the institutional sectors gains analytical superiority over the other complementary sectors, as is the wage–labour nexus in the regulation theory, or the financial domain in more recent analyses of contemporary forms of capitalism. Since agrarian institutions and land ownership concentration are important determinants of economic outcomes, agriculture could well be that dominant domain for the poor agricultural-dependent economies of our sample. Yet emerging industrializing economies, where patterns of institutional change and deeply influenced by modern corporations, are probably characterized to very different hierarchies.

Here, theoretical justifications drawn from political sciences are generally required to explain why one domain might rule over the others. The general premise that institutions are the result of a sociopolitical process shaped by organized vested interests of individual and collective actors rationally seeking to advance their objectives is shared by both these strands of literature (Amable 2003; Acemoglu and Robinson 2012). Institutions are accordingly defined by Amable (2003) as "political economic equilibria" since they reflect both political compromises and functional efficiency. Sociopolitical conflict also organizes institutional hierarchy through the imposition of a priority domain of institutional governance to which the other sectors' regulation must be submitted (Amable 2013). This view is fairly close to Acemoglu and Robinson (2005) or Bardhan (2005) who stress that institutions are not only designed to solve coordination problems between equal agents with similar interests, but also to solve conflicts among unequal actors with divergent interests.

Although we don't introduce any form of *a priori* institutional hierarchy between the seven sectors of our analysis, politics is not totally absent from our study. Although our book is less concerned with political institutions than is the case for those recent contributions, a certain number of political issues are, in fact, addressed.

First, in our work, polity is not considered as a domain by the cluster analysis. We essentially use political characteristics as *ex-post* characterization variables. This is a crucial difference between our approach and the existing typologies of state capitalism reviewed above. Government and state actions are not viewed as *primum movens* of actions of economic and social actors. We assume rather that in each society, the state interacts with the other organizational forms of the society through the policy and institution channels. The degree and the nature of state–social organization relationships are specific and conditioned by the particular national context into which they are embedded. They are consequently out of reach for our empirical material and strategy. We only seek to look at the articulation of types of regulation across different socioeconomic sectors and their similarities across countries.

Second, even though our focus is put on economic systems and not on the state, in contrast with Besley and Persson (2011), three out of our six

models of emerging capitalism, namely, the *Informal* (*Weak State*), *Statist* (*Resource Dependent*) and *Globalization-Friendly*, show clear connections with their *Weak State*, *Redistributive State* and *Common-interest State* models, which are discussed in Chap. 12. Moreover, the political legitimacy and efficiency of the state, as well as its place in the economy, are directly addressed by this book. We show that state interventionism covers a wide spectrum of forms across developing and emerging nations, with those various forms being strongly conditioned by long-term structural determinants. Third, various indicators of political institutions (constraints on executive, judicial checks) have also been analysed as explaining factors of cross-country income differences. We will use various constitutional and political indicators to characterize our models of capitalism by their main political foundations in our socioeconomic models, characterized in Chap. 12. Fourth, Chap. 14 discusses, for a selected sample of countries representative of the different models, the specific political equilibrium that generated each national configuration.

Technical Appendix

This appendix first describes the methodology implemented within each dimension to explore the multidimensional relations between the collected variables and to establish homogeneous and meaningful clusters of countries from these models of sectoral governance. It then describes how the original nominal database built on the basis of this first set of research findings has been used to identify a small number of capitalist system varieties via a second clusterization procedure.

   In the first place, we have compiled the complete required dataset from many institutional and academic sources. Unless otherwise specified, all data used throughout the following chapters are average values over the 2006–2010 period when a number of observations are available or, in a few cases, the single available observation during the period. We have cut down the initial sample of 193 countries by eliminating those with a population of less than a million, and those for which less than 50% of variables were known. This meant that we were able to collect sufficient

information for 140 countries and could control for the representativeness of the remaining sample.[19] Throughout the entire analysis, the possible influence of the remaining missing data has been neutralized by using corresponding mean values.

In the first tier of our analysis, we explore sets of continuous variables that separately describe the different dimensions of our seven fields of interest (labour, competition, social protection, education, finance, agriculture and the environment) using principal component analysis (PCA). The number of variables analysed ranges from 5, for the environment, to 16 for the labour domain, making a total of 81 variables for the seven sectors. In order to back up our PCA results, 25 bootstrap replications of the initial sample were implemented for each dimension to provide confidence intervals for the projected variable coordinates. The information provided by PCA then allowed us to carry out a mixed classification procedure in order to establish homogeneous and meaningful clusters of countries in each domain. Our mixed classification procedure enabled us to conduct hierarchical cluster analysis and to consolidate the relevant partition using k-means-like iterations.[20]

This meant we could identify, for each of the seven dimensions enunciated above, three to five markedly different types of sectoral governance. As such a procedure tended to force each individual into one or other of the identified clusters, we decided to systematically create a supplementary cluster for each dimension (the "*idiosyncratic*" cluster) in order to account for countries whose position is not particularly clear-cut. This cluster consequently brings together countries whose position in the initial multidimensional scatter of points is close to the barycentre.[21] Their position is explained by the fact that their sectoral governance type differs from that of clearly classified countries and also differs from that of the other countries present in the "*idiosyncratic*" cluster. Thus, these

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[19] Note, that in the different dimensions, complete information is available for most countries and that most of the remaining countries only suffer from one single missing variable.

[20] The so-called relevant partition, i.e., the relevant number of clusters, is derived from the analysis of the provided dendrogram, and the analysis of two indicators that respectively measure (i) the improvement of the inter- to intra-cluster variance ratio from one given partition to another and (ii) the impact of k-means consolidation on that ratio.

[21] More precisely, the standardized Euclidian distance between these countries and the barycentre is below half the median distance.

countries implement original institutional arrangements that are both (i) different from the "regularities" established for other countries and (ii) mostly different from one another. This "*idiosyncratic*" cluster is, in other words, that of countries where original institutional arrangements were at work. We obtained an original nominal database in which each country's national economic system is characterized by a vector of seven types of sectoral governance, one for each of the seven areas used to typify economic systems: labour, social protection, finance, product market competition, education, agriculture and the environment.

In the second tier, we proceeded to a multiple correspondence analysis based on our new nominal database (140 countries, 7 dimensions, 31 types of sectoral governance) to investigate the multidimensional relationships, or regularities, to be observed between the different states of each dimension. Finally, we clustered countries, once again using a mixed classification procedure similar to that of the first tier, in order to identify a small number of capitalist system varieties. Hence, each cluster brings together countries showing common traits, which are different from the commonalities observed for the other groups. As was done for the first tier, and for the same reason, we created a supplementary cluster bringing together countries whose position in the new multidimensional space was not clearcut because they were either (i) hybrid institutional configurations or (ii) mostly composed of *idiosyncratic* sectoral institutional types. We named this group of countries the "*Hybrid-Idiosyncratic*" group. The six identified "models of capitalism" could finally be characterized by their dominant institutional configurations, a mix of the seven sectoral governance types.

References

Acemoglu, D., S. Johnson, and J.A. Robinson. 2005. Institutions as a Fundamental Cause of Long-run Growth. In *Handbook of Growth Economics*, ed. P. Aghion and S. Durlauf, vol. 1A. Amsterdam: Elsevier, North Holland.

Acemoglu, D., and J.A. Robinson. 2006. *Economic Origins of Dictatorship and Democracy*. Cambridge, MA: Cambridge University Press.

———. 2012. *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. London: Profile Books.

Aghion, P., R. Burgess, S.J. Redding, and F. Zilibotti. 2008. The Unequal Effects of Liberalization: Evidence from Dismantling the License Raj in India. *American Economic Review* 98 (4): 1397–1412.

Ahrens J., and P. Jünemann. 2009. Adaptive Efficiency and Pragmatic Flexibility: Characteristics of Institutional Change in Capitalism, Chinese-Style. *PFH Research Papers* No. 2009/03, Private University of Applied Sciences, Göttingen.

Amable, B. 2003. *The Diversity of Modern Capitalism*. Oxford: Oxford University Press.

Andrews, M. 2013. *The Limits of Institutional Reform in Development: Changing Rules for Realistic Solutions*. Cambridge, MA: Cambridge University Press.

Aoki, M. 2001. *Toward a Comparative Institutional Analysis*. Cambridge, MA: MIT Press.

Aoki, M., and Y. Hayami. 2001. *Communities and Markets in Economic Development*. Oxford: Oxford University Press.

Bardhan, P. 2005. *Scarcity, Conflicts and Cooperation: Essays in the Political and Institutional Economics of Development*. Cambridge, MA: The MIT Press.

Becker, U. 2009. *Open Varieties of Capitalism: Continuity, Change and Performance*. Basingstoke: Palgrave Macmillan.

Berr, E., F. Combarnous, and E. Rougier. 2009. Too Much Consensus Could be Harmful: Measuring the Implementation of International Financial Institutions Policies and Their Effects on Growth. In *Monetary Policies and Financial Stability*, ed. Louis-Philippe Rochon. Cheltenham: Edward Elgar.

Besley, T., and T. Persson. 2011. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton, NJ: Princeton University Press.

Boyer, R. 2011. Diversité et évolution des capitalismes en Amérique latine. De la régulation économique au politique. Revue de la Régulation, 11, 1er semestre.

Crouch, C., W. Streeck, R. Boyer, B. Amable, P.A. Hall, and G. Jackson. 2005. Dialogue on 'Institutional Complementarity and Political Economy'. *Socio-Economic Review* 3: 359–382.

Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*. Princeton, NJ: Polity Press & Princeton University Press.

Fafchamps, M. 2004. *Market Institutions and Sub-Saharan Africa: Theory and Evidence*. Cambridge, MA: MIT Press.

Fiori, G., G. Nicoletti, S. Scarpetta, and F. Schiantarelli. 2007. Employment Outcomes and the Interaction Between Product Market Deregulation: Are They Substitutes or Complements? *IZA Discussion Paper* No. 2770. Bonn: IZA.

Galor, O., O. Moav, and D. Vollrath. 2009. Inequality in Land Ownership, the Emergence of Human Capital Promoting Institutions and the Great Divergence. *Review of Economic Studies* 76 (1): 143–179.

Greif, A. 2005. *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*. Cambridge, MA: Cambridge University Press.

Hall, P.A., and D. Soskice. 2001. An Introduction to Varieties of Capitalism. In *Varieties of Capitalism: The Institutional of Foundations of Comparative Advantage*, ed. P.A. Hall and D. Soskice, 1–68. Oxford: Oxford University Press.

Jackson, G., and R. Deeg. 2006. How Many Varieties of Capitalism? Comparing the Comparative Institutional Analyses of Capitalist Diversity. *MPIfG Discussion Paper* No. 06/2.

Jütting, J., D. Drechsler, S. Bartsch, and I. de Soy. 2007. *Informal Institutions: How Social Norms Help or Hinder Development*, Development Centre Studies. Paris: OECD.

Kuran, T. 2011. *The Long Divergence: How Islamic Law Held Back the Middle East*. Princeton, NJ: Princeton University Press.

Lau, L.J., Y. Qian, and G. Roland. 2001. Reform without Losers: An Interpretation of China's Dual-Track Approach to Transition. *Journal of Political Economy* 108 (1): 120–143.

Milgrom, P., and J. Roberts. 1990. Rationalizability, Learning, and Equilibrium in Games with Strategic Complementarities. *Econometrica* 58 (6): 1255–1277.

Naim, M. 1999. Fads and Fashions in Economic Reforms: Washington Consensus or Washington Confusion? Working Draft of a Paper Prepared for the *IMF Conference on Second Generation Reforms*, Washington, DC, October 26.

Nölke, A., and A. Vliegenthart. 2009. Enlarging the Varieties of Capitalism: The Emergence of Dependent Market Economies in East Central Europe. *World Politics* 61 (4): 970–702.

North, D.C. 1990. *Institutions, Institutional Change and Economic Performance*. New York: Cambridge University Press.

North, D., J.J. Wallis, and B.R. Weingast. 2008. *Violence and Social Orders: A Conceptual Framework for Interpreting Recorder Human History*. Cambridge, MA.: Cambridge University Press.

Persson, T., and G. Tabellini. 2003. *The Economic Effect of Constitutions*. Cambridge, MA: The MIT Press.

Pryor, F.L. 2008. System as a Causal Force. *Journal of Economic Behavior & Organization* 67 (3): 545–559.

———. 2010. *Capitalism Reassessed*. Cambridge, MA: Cambridge University Press.

Pryor, F. 2011. Capitalism and Freedom? *Economic Systems* 34 (1): 91–110.

Qian, Y. 2003. How Reform Worked in China. In *In Search of Prosperity, Analytic Narratives on Economic Growth*, ed. D. Rodrik. Princeton, NJ: Princeton University Press.

Rodrik, D. 2001. *The Global Governance of Trade as if Development Really Mattered*. New York: UNDP.

———. 2003. *In Search of Prosperity: Analytic Narratives on Economic Growth*. Princeton, NJ: Princeton University Press.

———. 2006. Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank's Economic Growth in the 1990s: Learning from a Decade of Reform. *Journal of Economic Literature* 44 (4): 973–987.

———. 2007. *One Economics, Many Recipes: Globalization, Institutions and Economic Growth*. Princeton, NJ: Princeton University Press.

———. 2008. Second-Best Institutions. *American Economic Review* 98 (2): 100–104.

———. 2010. Diagnostics before Prescriptions. *Journal of Economic Perspectives* 24 (3): 33–44.

Roland, G. 2004. Understanding Institutional Change: Fast-moving and Slow-moving Institutions. *Comparative International Development* 38 (4): 109–131.

Roland, G., and J. Jellema. 2011. Institutional Clusters and Economic Performances. *Journal of Economic Behavior and Organization* 79 (1–2): 108–132.

Schneider, B.R. 2009. Hierarchical Market Economies and Varieties of Capitalism in Latin America. *Journal of Latin American Studies* 41 (3): 553–575.

Stiglitz, J. 2003. *Globalization and Its Discontents*. New York: W. W. Norton & Company.

Topkis, D.M. 1998. *Supermodularity and Complementarity*. Princeton, NJ: Princeton University Press.

Williamson, O.E. 2000. The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature* 38: 595–613.

Xu, C. 2011. The Fundamental Institutions of China's Reforms and Development. *Journal of Economic Literature* 49 (4): 1076–1151.

Part II

The Seven Sectors of Institutional Governance

4

Labour and Production Relations

Ela Callorda Fossati

4.1   Introduction

Labour standards were first established in the nineteenth century, when Western Europe and North America were starting to become industrialized. Formal labour laws progressively regulated such issues as child labour, maximum hours, minimum wages, unemployment benefits, accident prevention, and collective bargaining or anti-discrimination, with labour becoming progressively more decommodified. Comparative studies of economic systems, in particular the comparative capitalism (CC) literature, commonly emphasize the high persistence and high relevance (in structuring institutional arrangements), in capitalist systems, of the institutions governing labour relations (Hall and Soskice 2001).[1] On the one hand, coherent labour arrangements in *liberal market economies* (LMEs) are based on decen-

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[1] Hall and Soskice (2001), among other economists and non-economists, use the expression "market economies" (MEs) as a synonym for "capitalist economies".

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tralized wage bargaining mechanisms, investment in general skills and weak protection of employment contacts. By contrast, labour institutions in *coordinated market economies* (CMEs) are characterized by relatively centralized bargaining structures, investment in specific skills[2] and high protection of employment contracts. Both models are considered to be functional alternatives (Rubery 2009), in the sense that general skills in LMEs are supposed to embody a substitute for labour regulations, whereas those regulations are designed to secure specific skills in CMEs. In both models, institutional complementarities aim at smoothing labour market wage adjustments, notably in the internationally competitive manufacturing sector. Non-LME countries, such as CME, are viewed as having less consistent institutional systems and, therefore, as being less competitive, as will be explained below.

The binary comparative approach of CC has raised criticism, however (Pryor 2005; Rubery 2009). For instance, Amable (2003) and Boyer (2005) have claimed that it is too limited to capture the real diversity of capitalism across all developed economies, and especially among countries classified as CME. The CME pattern of labour regulation is not as clear-cut as the LME one. CMEs have been decomposed into at least three differentiated systemic sub-configurations: *meso-corporatist*, *statist* and *social-democratic* economies (Boyer 2005). Meanwhile, other works have typified the *Mediterranean* (Amable 2003; Karamessini 2008) and *Asian* models (Amable 2003). Institutional diversity across those different sub-models is largely governed by the wage–labour nexus, which is defined as a basic structure of capitalist economies, with this structure being historically determined by "the overall legal and institutional conditions governing labour use and reproduction of workers' existence" (Boyer 2002: 107).[3]

Labour is, therefore, at the core of the characterization of capitalist systems, whether those are developed or not. Yet, with the exception of Rudra (2007), existing comparative studies of capitalist systems have consciously excluded developing countries from the scope of their analysis of labour regulations. One reason for that neglect lies in the controversial question of

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[2] According to Becker's theory of human capital, general skills are defined as those that are useful for all employers, while specific skills are only useful for current employers. The alternative view, defended by the VoC, argues that reduced labour mobility can transform (technologically) general skills into *de facto* specific skills (Estévez-Abe 2009; Acemoglu and Pischke 1999).

[3] Author's translation.

the nature and measurement of labour institutions for peripheral capitalist economies. Yet, forms of labour institutions, broadly defined as the rules and norms governing *all forms of work*, exist in all countries, irrespective of their level of economic development. In a more restricted acceptation, however, labour institutions refer to the rules and norms governing *economic* forms of labour, those that can easily be considered within the official economy and which correspond roughly to the status of paid employment and unpaid family workers working in a family business, especially in agriculture. Economic development essentially requires a diversified and flexible labour market to be set up, and such a set-up requires formalized rules relative to contracts and labour standards[4] to be substituted for the former informal governance mechanisms marked by domination, custom and hazard. A major feature of developing countries' socioeconomic systems is that the *institutionalization* of labour has often been hindered by structural problems pertaining to all political, economic, financial and social dimensions. Thus, although analysing a developing country's labour institutions is fully justified, it requires that an adapted framework of analysis is used. This framework is presented in the next section.

The chapter is organized as follows. After this introduction, labour issues are reviewed in relation to the diversity of capitalism. Measurement issues of labour institutions are then discussed, before the results of the statistical analysis and our four-group typology of labour institutions are presented.

4.2   Economic Systems and Labour Issues: A Review

As regards labour market institutionalization in developing countries, various issues are to be found in the literature. All these issues have influenced this chapter's empirical analysis.

The first issue refers to the dualistic structure of developing economies. Pioneering models of economic development have focused on the process of workforce transfers from low to highly productive modern

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[4] Labour standards refer to the conformity between domestic labour institutions and international labour standards as defined by International Labour Organization (ILO) conventions.

sectors. Under the assumption of an infinite labour supply in the traditional sector, the Lewis model (1954) shows that such transfers enable the modern manufacturing sector to accumulate capital with no wage rise (Dike 2003). Harris and Todaro (1970) add that dualism entails the coexistence of high wage and urban unemployment levels in the modern sector, so that the development of the informal sector is likely to be boosted, with rural workers attracted to cities by higher wages working in informal activities, while waiting for a formal job with the expected wage level. The informal sector in developing countries, however, is not a mere reserve of unemployed labour that depress the wages of the modern sector, like in early nineteenth century Europe. On the one hand, informal workers are generally excluded from the global production process since they mainly work in low-paid service activities, or in small market production units (in urban and rural areas) disconnected from global markets. Consequently, they have only weak ties with the modern jobs of the formal sector. On the other hand, real wages actually appeared to be more flexible during the eighties and the nineties than had been predicted by the Harris and Todaro model (Freeman 2010), even in countries that did not reform their labour regulations (Cook 1998).[5]

The second issue is related to the specific environment of labour markets, marked by informality, poverty and underemployment, which tends, in many developing economies, to restrict the role of trade unions and the ensuing institutionalization of labour market relations. On average, developing countries tend to show lower trade union density than developed countries, and their collective bargaining mechanisms, when they exist, are not widespread. For mainstream economists, the oligopolistic structure of (product) markets represents the source of trade unions' bargaining power. According to that dominant view, trade unions act as lobbies by negotiating the conditions required to secure labour incomes in the formal sector (Rama 1997). However, that view generally tends to neglect the specific forms of structural and dynamic efficiencies that could result from the organization of workers in the informal economy (Kucera and Roncolato 2008).

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[5] Many developing countries have actually experienced a rapid expansion of salaried jobs in export processing zones where employment relations are governed by low labour and social standards.

The third issue relates to the extent of the reproductive economy, defined as domestic or community production, located at the margin of the official economy. In many developing countries, that domestic sphere undoubtedly interacts with labour institutions, notably by the intercession of gendered patterns of labour governance. For Nita Rudra (2007), emerging welfare regimes across the developing world generally face the difficult challenge of addressing two competing goals: commodification, the extension of market wage labour, and decommodification of labour, which consists in welfare policies that make individual survival and protection more autonomous from labour market outcomes. Women, and their domestic and informal activities, are at the core of this challenge. Even though women's participation in the labour force is certainly affected by long-term trends of economic growth and industrialization, it is worth noting that, in developing countries, the gender gap in participation to paid employment typically remains higher than the gender gap in overall participation in the labour force (Elson 1999). A less pronounced gender gap in overall participation should not be confused, however, with improvements in women's economic autonomy, since women are more likely to be unemployed or informal workers than men, and the total amount of their work in the "reproductive economy" remains invisible (Mrkić et al. 2010).

The fourth issue concerns the political legitimacy of the state and its place in the economy, both as an employer and as a normative actor. Public employment is traditionally high in developing countries, especially when compared to the private formal sector. In many developing economies, especially those relying on natural resource rents, the extension of public employment has been, and still is, considered as a means of social insurance against external risks faced by the domestic economy (Rodrik 2000). Structural adjustments, however, have significantly altered employment public policies in resource-poor countries, with public spending cuts and privatizations having resulted in a fast decrease in public employment. In a context of fiscal cuts, labour relations institutionalization efforts have tended to be associated with restrained ambitions of labour inspection and judicial conflict litigation, leading to weak enforcement of labour standards. Moreover, state intervention in centralized bargaining structures may, in some political contexts, be guided by clientelistic purposes.

Within that general set-up, major distinctions between developing countries specifically concern the elite position as regards workers' rights, the degree to which those rights are codified by law, and the actual degree of their enforcement (Berg and Kucera 2008). In many Latin American countries, for example, quasi-generalized trends of labour market liberalization and liberal schemes of social protection indicate that most Latin American countries have generated different national varieties of *liberal-informal welfare regimes* (Barrientos 2009). Moreover, in peripheral capitalist economies, *welfare regimes* are not necessarily backed by the state as is the case in developed countries (Wood and Gough 2006). Non-state actors, such as the family, private firms or migrants' remittances play a significant role in the "extended reproduction" of those production regimes that are typical of developing countries, thereby increasing the scope for variety across national regimes.

All those four issues describe the set-up in which labour regulation might be characterized for developing countries. That set-up is summarized in Fig. 4.1.
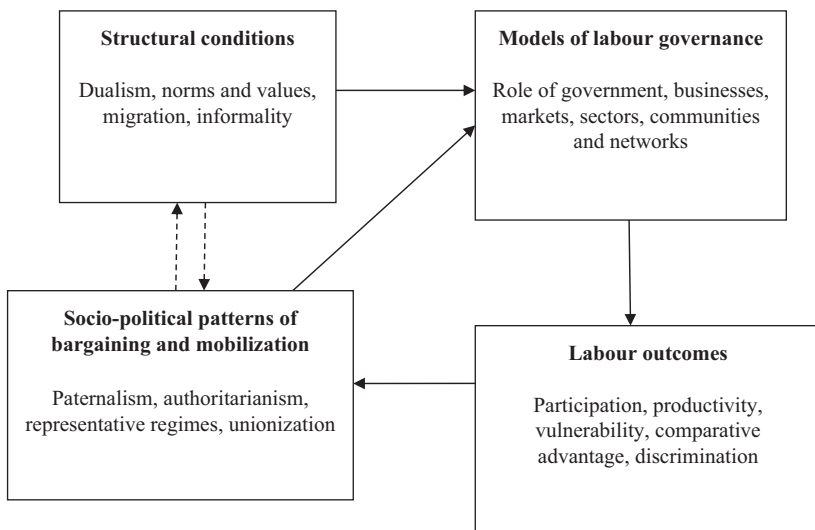
Fig. 4.1 Set-up for assessing models of labour and production relation governance

4.3   Measuring Labour Institutions

Labour institutions are the outcome of social and political conflict and negotiation (Boyer 2005: 522). They involve multiple principles and levels of coordination, from firms-level norms of work organization to statutory labour laws. Accordingly, it seems appropriate to refer to a broadly defined concept of labour institutions, and not to restrict the measurement of those institutions exclusively to the market-based mechanisms of coordination. The dataset selected in the present chapter contains 16 variables describing both market and non-market mechanisms of coordination of labour use and relations. Our dataset encompasses standard socioeconomic characteristics as well as variables capturing national and international legal commitments regarding labour standards. It covers six dimensions: (i) the scope and socio-demographic structure of labour participation, (ii) basic labour standards, (iii) international labour mobility, (iv) wage status in employment, (v) protection of "standard" employment contracts, and (vi) representation of workers (Table 4.5 of Appendix to this chapter).

The *labour force participation rate* (*lfp*), calculated as the percentage of the working-age population[6] involved in economic activities (employed[7] or unemployed workers), captures the relative extent of the available workforce. That rate tends to decline with GDP growth at low levels of economic development, and to increase with growth at higher levels (Guy Standing, 1981, quoted in ILO 2009). Exclusion from economic activity is conditioned by structural factors. Women and young people constitute social groups with systematically lower labour force participation than for men and adults. In order to account for labour force structure by gender and age, two additional and complementary ratios

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[6] The working-age population corresponds to the population aged 15 years and more. We make use of the KILM database, which provides better scope for international comparisons. KILM presents a complete series for lfp for 191 countries, including country-reported data if the data exists, and an econometric estimation of this variable generated through an econometric model when the data is missing.

[7] The resolution of the 15th International Conference of Labour Statisticians (ILO January 1993) defines six main categories of status in employment: (i) employees, self-employed workers; (ii) own-account workers; (iii) employers; (iv) contributing family workers; (v) members of producers' cooperatives); and (vi) workers not classifiable by status.

have been incorporated to the database: *lfp_f* is the ratio measuring the *labour force participation of women relative to that of men* and *lfp_y* is the ratio measuring the *labour force participation rate of the under 25 year-olds relative to the labour force participation rate of the prime working-age group* (25–54 years old).

Two variables describe the prevalence of low basic labour standards. The *child labour index* (*cl*) is built by coding two combined quantitative variables: (1) the percentage of economically active children aged 10–14 years old, and (2) the percentage of children out of primary school.[8] To some extent, for a poor economy, an increase in child labour generally signals an expansion of the available labour force. The variable *working poor* (*wkp*) is alternatively defined in "absolute" terms in developing countries, as the share of the working poor[9] in the working population and, in "relative" terms, in advanced countries, as the share of the working poor (at the threshold of half the median income) in the overall working population.

Two variables describe the international mobility of labour. The *net international migration rate* (*mig*) is computed as the difference between the growth rate of a country's population and the rate of 'natural' increase of that population. A second variable is a *gender ratio of high skilled emigration toward advanced economies* (*mig_sf*).[10]

The *normalized minimum wage on GDP per capita* (*minw*) measures the relative level of what is supposed to be, in accordance with the corresponding international conventions,[11] the minimal guaranteed wage, for low-skilled workers, in the least organized sectors or industries.[12] The *waged and salaried workers rate* (*wsw*) is measured as the percentage of workers in employment that are considered to be employees. The

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[8] See Bescond et al. (2003) and Bazillier (2008) for data source description.

[9] Our poverty line is fixed at 2.5 USD a day.

[10] Mig_sf is a gendered measure of the brain drain. It is calculated as a gendered ratio of those emigrated adults with post-secondary education living in advanced economies, considered as a proportion of the total skilled population born in the source country (Docquier et al. 2007).

[11] Notably the ILO Convention no. 26 (1928) and the ILO Convention no. 131 (1970).

[12] It has been underlined by Saget (2008) that developing countries are overrepresented at the extreme bounds of the distribution: significantly high and significantly low minimum wages. The author explains that, in these situations, the minimum wage probably does not play its "conventional" role.

resolution of the 15th ICLS (ILO January 1993) classifies as employees all workers whose basic remuneration, established by their explicit or implicit employment contract, is not directly dependent upon the revenue of the unit for which they work.

Data on labour market regulations is scarce, especially for developing and emerging countries. Moreover, many authors and institutions (Sangheon et al. 2008) have pointed to the poor quality of the available data, as well as to the strong normative assumptions underlying them. In the absence of any alternative, the four variables measuring the specific labour market regulation have, nevertheless, been included in our dataset, bearing in mind that they must be interpreted with great caution. Indexes have been scaled, so that high values mean that "standard"[13] employment contracts are strongly protected by labour regulations. The *rigidity of hours index* (*hours*) ranks the existence of legal restrictions on night work, weekly holiday work, duration of the workweek and paid vacations. Two indexes*; mcd* and *mch*, refer respectively to the legally *mandated cost of worker (*individual) *dismissal* and *hiring.* In both cases, the mandated cost is measured as a percentage of the weekly wage. The *difficulty of redundancy index* (*redundancy*) considers the existence of legal procedures regulating collective terminations such as third party notification, retraining and replacement schemes and priority rules.

Workers' representation is essentially gauged by three indicators. The *collective bargaining centralization index* (*barg*) presents a low value for countries where wages tend to be set up at the level of each company, and higher values for more centralized systems of wage bargaining. The *freedom of association and right to collective bargaining index* (*facb*) results from

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[13] "Standard employment" refers to the assumptions made by the Doing Business methodology. According to this methodology, the worker is a full-time non-executive male employee, earning a salary plus benefits equal to the economy's average wage during the entire period of his employment. Workers are not granted more benefits than those mandated by law, regulations or (if applicable) collective bargaining agreements. They are lawful citizens who belong to the same majoritarian "race" and religion. They live in the economy's largest business city. They are not a member of a labour union, unless membership is mandatory. The Doing Business methodology also makes critical assumptions about the businesses that are accounted for. They are constituted as limited liability companies in the manufacturing sector, operating in the economy's largest business city, 100% domestically owned and of a large size (60 employees). Moreover, relevant businesses are subject to collective bargaining agreements in economies where such agreements cover more than half of the manufacturing sector.

the combination of three variables: (i) the number of ILO convention ratifications on collective bargaining and freedom of association, (ii) the civil liberties index (Freedom House), and (iii) the trade union density. The ILO convention *ratification* index (*ratif*) ranks the number of ratifications of ILO conventions on labour standards, specially those relating to the core labour standards which are, accordingly, more heavily weighted.[14] The ratification of ILO conventions is generally used as a proxy for the extent and scope of labour market protections, even if it does largely reflect governmental preferences rather than the extent and effectiveness of the coverage. However, given the ILO's tripartite structure, the process of ratification in itself requires that worker representation is effective.[15]

4.4   Models of Labour and Production Relation Governance

4.4.1 The Main Patterns of Labour Governance Differentiation

At first stage, Principal Component Analysis (PCA) is implemented on the 16 variables measuring labour institutions in order to explore their interrelationships. From the initial set of 154 countries, 15 countries with seven or more missing values have been removed without distorting the sample's representativeness in what concerns emerging and developing countries.[16] It should be noted that 73% of the remaining countries present complete information or just one single missing value.[17] PCA is

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[14] According to ILO strategy, core labour standards are: the elimination of forced labour, the abolition of child labour, the elimination of discrimination in respect of employment and occupation and the respect of freedom of association and collective bargaining.

[15] For instance, Guy Standing (2008) points to the large opposition within the International Confederation of Free Trade Unions (ICFTU) against the recognition of the Self-Employed Women's Association of India (SEWA) as a legitimate body to represent workers at the ILO governing body.

[16] The initial set includes all countries (or territories) in the world with more than 1 million inhabitants. Countries that have been excluded are: Afghanistan, Belarus, Cuba, Eritrea, Iraq, Rep. Dem. of Korea, Lebanon, Liberian, Libya, Myanmar, Puerto Rico, Somalia, Sudan, Turkmenistan and the Virgin Islands.

[17] Prior to performing PCA, the 'factorability' of this dataset was verified by the Bartlett test of sphericity which indicates that the correlation matrix is statistically different from an identity matrix ($p < 0.001$), and the Kaiser-Meyer-Olkin score of sampling adequacy is 0.72, which is close

intended to produce a small number of factors[18] that are linear combinations of the whole set of initial variables. In order to retain a relevant number of components, the contributions of all sixteen variables to the first six principal components are reported in Table 4.1.

Table 4.1 Eigenvalues and active variable-axis correlations

Principal components (PC)[a]	PC1	PC2	PC3	PC4	PC5	PC6
Eigenvalue	4.49	1.95	1.77	1.24	1.01	0.89
% of variance	28.1	12.20	11.05	7.76	6.33	5.59
Cumulative %	28.1	40.26	51.31	59.07	65.40	70.99

Correlation of variables with PC[b,c]	PC1	PC2	PC3
Overall labour force participation	**0.71**	**−0.43**	**−0.40**
Female labour force participation	0.19	**−0.48**	**−0.62**
Young labour force participation	**0.63**	−0.19	−0.25
Child labour index	**0.89**	0.09	−0.09
Working poor	**0.78**	0.02	−0.12
Net international migration rate	−0.28	**−0.50**	0.04
Gender ratio of high-skill emigration	**0.54**	0.12	−0.13
Minimum wage (% GDPpc)	**0.56**	0.11	−0.20
Waged/salaried workers	−0.67	−0.35	−0.16
Rigidity of hours	−0.12	*0.47*	**−0.56**
Mandated cost of workers dismissal	0.34	0.33	0.33
Mandated cost of workers hiring	−0.43	**0.47**	−0.31
Difficulty of redundancy	0.21	**0.59**	−0.09
Collective bargaining centralization	−0.12	0.20	**−0.41**
Freedom of association and bargaining	**−0.64**	−0.20	**−0.41**
ILO ratification	−0.49	0.33	**−0.43**

[a]Pairwise deletion was used for handling missing data
[b]Value in bold type indicates that the contribution of variables to PC$_i$ is higher than the average contribution
[c]Value in cursive type is the one for which the bootstrap indicates a low degree of confidence for its interpretation respect to PC2
Data sources: Author's calculations on data collected from KILM, ILO, Bazillier (2008), WB (2007), OECD (2008), UNPD (2009), Docquier et al. (2007), Saget (2008), Doing Business, EFW (2009); for details, see Table 4.5

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to 1 which therefore shows that the correlation pattern is relatively compact. The value of the correlation matrix determinant is 0.002 (>0.00001) indicating that, even if we cannot reject the hypothesis of singularity (Haitovsky test), it is reasonable to accept the idea of non-extreme multicolinearity.

[18] In this section, factors, axes or principal components are used as synonyms.

As shown in the upper panel of Table 4.1, the first five components exhibit an eigenvalue that exceeds one (Kaiser's criterion of factor extraction), explaining respectively 28.09% (PC1), 12.17% (PC2), 11.05% (PC3), 7.76% (PC4) and 6.33% (PC5) of the total variance. Nevertheless, the scree plot reveals a clear break after the third component. Moreover, the identification of this break is supported by a parallel analysis showing that only the first three components have their eigenvalue exceeding the corresponding criterion thresholds for a randomly generated data matrix of the same size (16*139). Finally, the three-component solution explains a total of more than one half of the variance and can be interpreted in a meaningful way.

Figures 4.2 and 4.3 below respectively feature the projection of the active variables, and the projection of individuals (countries) on the first factorial plan. Three variables describing geographical localization, the Human Development Index (HDI) and the Gross National Product (GNP) per capita have been introduced as additional variables in order to improve the cluster characterization.[19] In order to establish PCA results, namely, to provide confidence intervals for the projected coordinates of active variables, 25 bootstrap replications of the sample have been implemented. As a result, all 16 variables can be considered, at a low level of risk, as occupying consistent positions over the different axes of interpretation.[20]

As shown in Fig. 4.2, the first component (PC1) is positively correlated with low basic labour standards (*cl* and *wkp*). A positive association also exists between PC1 and the extent of the labour force, as measured by the two participation rates (*lfp*, *lfp_y*), and between PC1 and the extent of the gendered brain drain (*mig_sf*). While a high relative level of the minimum wage (*minw*) has a positive association with PC1, the rate of salaried workers presents a negative one. By contrast, the first component bears a negative correlation with the *freedom of association and right to collective bargaining index* (*facb*). Consequently, in the countries' projection on the first factor (Fig. 4.3), Sub-Saharan and South Asian countries,

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[19] Note that these variables are inactive and do not affect the principal components construction.

[20] The unique exception is the variable measuring the number of worked hours, for which the bootstrap test indicates that only some extreme cases have a greater contribution to the position of the so-called *hours* on the second principal component.
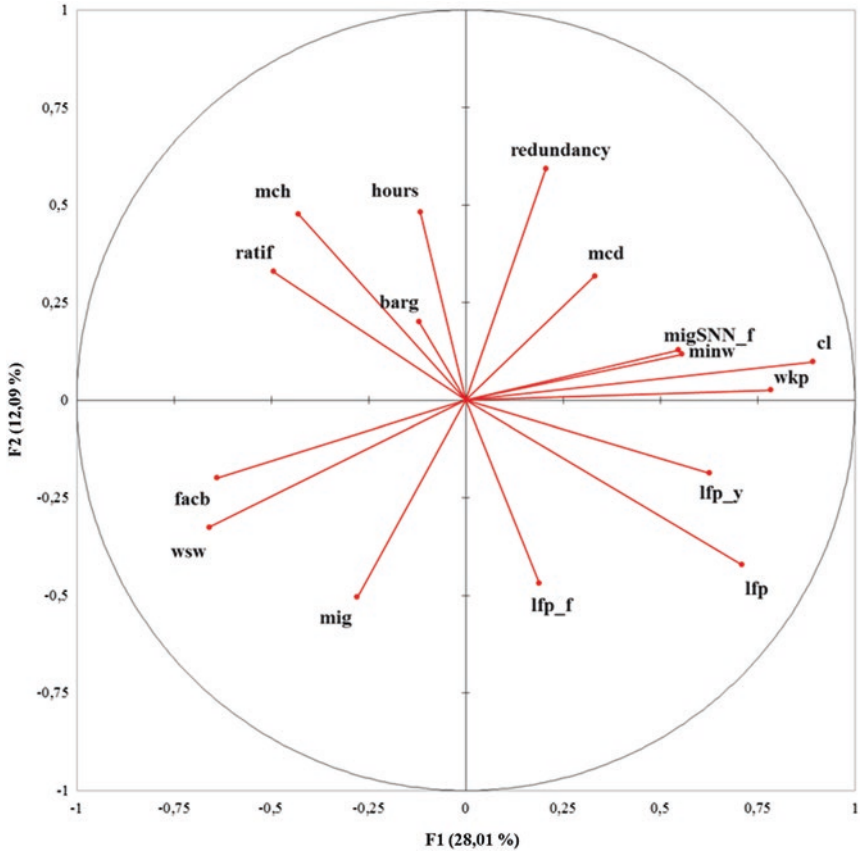
Fig. 4.2   Projection of active variables on the first factorial plan

described by the prevalence of informal rules of labour relations (Guinea, Tanzania, Mozambique, Ethiopia, Nepal, Madagascar, Cambodia) are located on the right side of the plan, and various developed European countries which all feature high levels of labour decommodification (Hungary, Italy, Slovak Republic, Luxemburg, Czech Republic, Belgium, France) on the left side.

As for the second component (the vertical axis of Figs. 4.2 and 4.3), it bears a positive association with *regulations on hiring and firing* (*mch, redun*) and a negative one with the *migratory* (*mig*) and *gender* (*lfp_f*)
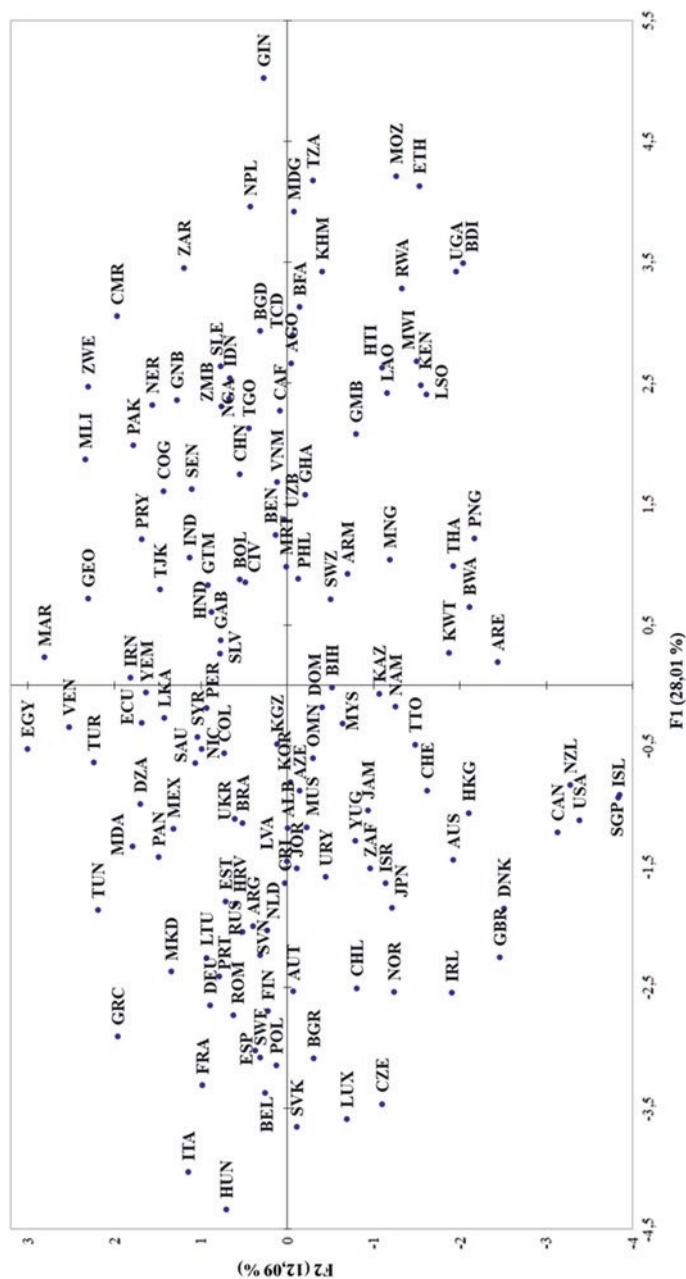
Fig. 4.3 Projection of countries on the first factorial plan

composition of the labour force. High-income liberal countries (Singapore, Iceland, United States, New Zealand and Canada), featuring widely open labour markets, stand at the bottom of the first factorial plan. At the opposite end of this second axis, lower-middle-income countries, such as Egypt, Morocco, Venezuela and Turkey, correlate with high levels of mandated costs of collective termination and hiring, and a low migrants and women share of the labour force.

Table 4.1 shows that the third factor is negatively correlated with the *woman share of the labour force* (*lfp_f*), the various indicators of worker representation (*ratif*, *facb*, *barg*) and that of *legal restrictions on working hours* (*hours*). Figure 4.5 in the Appendix shows that the third axis opposes countries such as Benin, Brazil, Germany, Norway and Sweden where women's economic participation as well as worker representation guarantees are high, to countries such as Egypt, Iran, Jordan, Kuwait, Malaysia and Syria, where women's participation in the labour force is low, and worker representation is weak or inexistent.

Although some variables contribute to different axes, a clear picture arises from the Principal Components Analysis (PCA) as concerns the signification of the first three axes. The first axis describes the standard opposition between the pre-commodification of labour and the decommodification that is at the core of Rudra's (2007) analysis of the varieties of welfare models across world nations. This first axis clearly opposes the least developed countries of our sample, where workers' survival mainly relies on informal mechanisms of social relationship that stand outside of the labour market, and the developed countries where workers' survival and protection is decommodified, namely, sustained by a broad system of collective rules of social protection and insurance against risk. The second axis describes the degree of openness of the labour sphere, since it features the opposition between closed, namely, high-discrimination and low-access labour markets and open markets. As for the third axis, it can be interpreted as the locus of the opposition between authoritarian-paternalistic and democratic-representative patterns of labour institutionalization. Hence, our description of labour market outcomes covers the various dimensions of complexity that were highlighted in the previous section.

4.4.2 The Four Models of Labour Market and Production Relation Governance

In a second stage, a mixed method of classification has been implemented on the basis of the 16 selected active variables in order to classify the 139 countries of our sample into homogenous groups. Our mixed method uses hierarchical ascendant classification, with the relevant partition being consolidated through k-means analysis. As for the identification of the relevant number of clusters, we examine the dendrogram and two indicators respectively measuring (i) the improvement of the between to within variance ratio from one given partition to another and (ii) the impact of the k-means consolidation on that ratio. In conformity with our theoretical assumptions, these operational criteria suggest a classification into four groups (see Table 4.6 of the Appendix to this chapter). Consistently with our classification method, all countries are necessary classified into one of the groups, even if they are not clearly assigned to one cluster or another. In order to avoid classification errors due to forced assignment of the countries that stand close to the barycentre so as, we define *ex-post* a fifth group of *idiosyncratic* countries. Those countries present the least distance to the hypothetical average multidimensional observation.[21] The clusters and their composition are reported in Table 4.2. Chraracterization variable's average values for each cluster are reported in Table 4.3 and are used to successively typify each mode of labor sector governance.

The first cluster, labelled *liberal*, represents systems where the institutionalization of labour combines a low degree of regulation of standard employment contacts with a moderate degree of engagement as regard worker representation. Flexible regulation governs the working hours, the procedures of collective terminations and the mandated cost of hiring. The ratification process of international labour conventions is not the main reference point of the labour institutionalization process. Moreover, those countries maintain high positive net migration rates. As in the case of the *coordinated labour market* cluster, levels of income per capita and human development are high. In both cases, basic labour standards tend to be successfully enforced, and the employment structure combines a

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[21] The standardized Euclidean distance between these countries and the barycentre is lower than half the median distance.

Table 4.2 Classification of countries in clusters

Liberal	**Armenia**, Australia, **Azerbaijan**, **Botswana**, Canada, **Chile**, Denmark, **Hong Kong**, Iceland, Ireland, **Israel**, **Jamaica**, **Japan**, **Kazakhstan**, **Rep. Korea**, Kuwait, **Malaysia**, **Mauritius**, Namibia, New Zealand, Papua New Guinea, **Philippines**, **Singapore**, **South Africa**, Switzerland, **Thailand**, Trinidad and Tobago, Ukraine, United Arab Emirates, United Kingdom, USA, **Uruguay**
Coordinated	**Argentina**, Austria, Belgium, **Brazil**, **Bulgaria**, **Croatia**, **Czech Republic**, Estonia, Finland, France, Germany, Greece, **Hungary**, Italy, Lithuania, Luxembourg, Macedonia, Moldova, Netherlands, Norway, Panama, **Poland**, Portugal, **Romania**, **Russian Federation**, Slovak Republic, **Slovenia**, Spain, Sweden, Ukraine
Informal	Angola, Bangladesh, Benin, **Bolivia**, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, **China**, Rep. Dem. of Congo, Rep. Congo, Ethiopia, Gabon, Gambia, Georgia, Ghana, Guinea, Guinea-Bissau, Haiti, **Indonesia**, Kenya, Lao, Lesotho, Madagascar, Malawi, Mali, Mongolia, Mozambique, Nepal, Niger, **Nigeria**, Paraguay, Rwanda, Senegal, Sierra Leone, Tajikistan, Tanzania, Togo, Uganda, Uzbekistan, Vietnam, Zambia, **Zimbabwe**
Paternalistic	Algeria, **Ecuador**, **Egypt**, **El Salvador**, Guatemala, **India**, **Iran**, **Jordan**, **Mexico**, **Morocco**, Nicaragua, **Oman**, **Pakistan**, **Peru**, **Saudi Arabia**, **Sri Lanka**, Syrian Arab Republic, **Tunisia**, **Turkey**, **Venezuela**, Yemen
Idiosyncratic	Albania, Bosnia and Herzegovina, **Colombia**, Costa Rica, **Cote d'Ivoire**, **Dominican Republic**, Honduras, Kyrgyz Republic, Latvia, Mauritania, Serbia and Montenegro, Swaziland

Note: Bold characters denote emerging countries, in the sense that they have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's
Data source: Author's calculations

high proportion of wage workers and a moderate minimum wage to average income ratio. This first cluster, identified as *liberal*, is reasonably consistent with the CC description of labour outcomes in the case of *liberal market economies*.

Unsurprisingly, archetypical liberal advanced economies, such as Australia, Canada, United Kingdom and USA, are clustered together as *liberal* models of labour governance. It is more striking to observe that numbers of middle income and emerging countries have also adopted *liberal* labour institutions (Botswana, Chile, Hong Kong, Malaysia, Mauritius, Philippines, Singapore, South Korea and Thailand) much akin to those

Table 4.3 Active variable mean values by cluster[a]

	Liberal	Coordinated	Informal	Paternalistic	Idiosyncratic	All
Overall labour force participation	65.0	**58.1**	73.9	55.8	62.2	64.8
Female labour force participation	0.743	**0.762**	**0.805**	**0.423**	0.656	0.711
Young labour force participation	0.605	**0.487**	0.714	0.61	0.611	0.617
Child labour index	**1.8**	**1.5**	**4.2**	2.6	2.6	2.7
Working poor	**19.0**	**10.0**	**77.2**	32.9	39.4	43.7
Net international migration rate	**2.8**	1.43	**−1.27**	−1.26	−1.42	0.16
Gender ratio of high-skill emigration	**1.288**	**1.122**	**1.882**	**1.169**	1.286	1.423
Minimum wage (% GDPpc)	**75.7**	**81.0**	24.8	55.2	65.8	64.1
Waged/salaried workers	**0.41**	**0.45**	0.99	0.66	0.59	0.66
Rigidity of hours	**11.6**	**42.5**	31.6	29.2	22.3	28.2
Mandated cost of workers dismissal	3.5	**2.8**	**5.2**	**6.2**	4.1	4.3
Mandated cost of workers hiring	**2.9**	**8.2**	4.2	5.2	5.8	5.1
Difficulty of redundancy	**12.3**	32.1	40.2	41.0	20	30.6
Collective bargaining centralization	5.1	**6.0**	5.4	5.2	**4.8**	5.4
Freedom of association and bargain	**3.7**	**4.4**	2.2	**2.2**	2.9	3.1
ILO ratification	**2.5**	**4.6**	**2.6**	3.4	3.2	3.2
Number of countries	31	30	45	21	12	139

[a]Pairwise deletion was used to handle missing data
Data sources: Author's calculations, see Table 4.5 for details

that have been typified for Anglo-Saxon liberal countries. Table 4.2 also shows that many Central and Eastern European transition countries have also adopted *liberal* labour regulation during the 1990s. By contrast, it is worth remarking that only two emerging countries (Argentina, Brazil) present a *coordinated* model of labour regulation. Actually, almost all the developing countries that have been described by Rudra (2007) as *productive welfare states*,[22] since they give priority to labour commodification, have established *liberal* labour institutions. In Chile, for example, the ratification of two core labour conventions relative to the freedom of association and to collective bargaining intervened only in 1999. Although the next significant labour reform (in 2001) aimed at legally recognizing basic aspects of those rights after years of limited enforcement, new flexible labour arrangements were in fact introduced with respect to hiring, firing, working hours and decentralization of wage bargaining.

Emerging and developing countries that have adopted a *liberal* labour governance have not followed similar trajectories, however. Typically, the emerging and developing countries pertaining to that cluster (Commonwealth of Independent States, East Asian and Pacific, Middle Eastern, Sub-Saharan English-speaking countries) all show 'truncated' forms of *liberal* labour institutions. In particular, Azerbaijan and Thailand, with a rate of wage and salaried workers of nearly 40%, scored two standard deviations below the cluster average. Furthermore, Armenia and South Africa, with the incidence of in-work poverty amounting to 70%, represent *liberal* patterns that share close similarities with the *informal* model described below.

As opposed to those of the *informal* labour governance cluster, countries described as *coordinated* labour governance, have established strong mechanisms of worker representation. The degree of employment contract standardization is high with respect to the mandated cost of hiring and working hours. However, individual termination is statutorily less expensive than it is elsewhere, even if there may be exceptions, like Argentina and Portugal. Although the labour force structure features a relatively high rate of participation for women and a relatively low one for young workers, labour force is tighter than in the *informal* and *liberal* clusters.

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[22] Chile, Israel, Rep. of Korea, Kuwait, Malaysia, Mauritius, Singapore, Thailand, Trinidad and Tobago.

In what concerns developed OECD countries, our analysis clusters countries differentiated as being *Continental* (except for Switzerland and Ireland), *Social-democratic* and *Mediterranean* per Amable (2003). Differences between those three *Coordinated* models are too fine-grained to be perceptible when one clusters a larger sample of countries featuring much higher heterogeneity. Moreover, some dimensions, such as types of employment policies and the size of public employment, are not documented in our sample. In a number of East European countries, the transition process has resulted in labour reforms that have weakened the protection of standard employment contracts and the guarantees of worker representation. Russia and Ukraine show, for example, the lowest scores for freedom of association and collective bargaining of all *Coordinated labour market* countries. On the other hand, a high mandated cost of hiring in those countries indicate that social security benefits are still linked to occupational status, which is one of the main features distinguishing *coordinated* and *liberal* clusters and, to a lesser extent, *coordinated* and *informal* ones.

Turning our attention to the characterization variables reported in Table 4.4, it appears that income inequalities tend to be lower in countries with *coordinated* labour institutions than elsewhere. Furthermore, within-group dispersion is fairly high, notably between *coordinated* social democratic countries (Sweden and Finland) and *coordinated* Latin American countries (Brazil, Argentina, and Panama). That difference not only concerns overall income but also gender inequality, notably in terms of economic participation.[23] By classifying Latin American countries as *Weak dual welfare states*, Rudra (2007) suggests that they have tended to focus on two contradictory objectives: the overall progress of commodification of labour, and the extension of its protection by rules and institutions for certain individuals. Argentina provides an example of an institutional context in which *coordinated* labour institutions coexist with a high degree of noncompliance to state-enforced rules of social protection. Only half of the workforce obtains the entire benefits to which it is legally entitled (Ronconi 2010).[24]

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[23] For instance, a ratio of female to male participation rates (*lfp_f*) of 0.58 is recorded for Panama, which represents more than 2 standard deviations below the cluster average.

[24] In the case of Argentina, noncompliance is notably due to weak enforcement which is empirically approximated by the number of labour inspectors per worker.

Table 4.4 Mean values and distribution of supplementary variables by cluster[a]

| | Clusters | | | | | |
	Liberal	Informal	Coordinated	Paternalistic	Idiosyncratic	All
Gross national income p.c.	**21,414**	**744**	**21,695**	**3862**	**2928**	10,662
Human development index	**0.757**	**0.409**	**0.797**	**0.608**	**0.609**	0.617
Gini index	42.0	42.0	**34.0**	43.2	42.9	40.2
Contributing family workers in female employment (%)	**4.0**	**29.4**	**3.4**	**24.8**	6.6	11.4
Union density[b] (%)	25.9	**14.1**	**35.14**	**13.2**	10.9	22.6
Union density[c] (%)	35.5	39.1	46.2	30.3	35.8	38.8
High-income OECD members	11	–	13	–	–	24
East Asia and Pacific	7	6	–	–	–	13
Europe and Central Asia	3	3	14	1	5	26
Latin America & the Caribbean	4	3	3	7	4	21
Middle-East and North Africa	2	–	–	10	–	12
Sub-Saharan Africa	4	31	–	–	3	38
South Asia	–	2	–	3	–	5
Number of countries	31	45	30	21	12	139

[a]Pairwise deletion was used to handle missing data

[b]Union membership as a percentage of non-agricultural labour force or as a percentage of total employment

[c]Union density: union membership as a percentage of formal sector wage earners or as a percentage of wage and salary earners

Data sources: Author's calculations on data collected from World Bank, UNDP, ILO and Lawrence and Ishikawa (2005); see Table 4.7 for details

In sharp contrast with the *coordinated* and *liberal* models, *informal* labour governance is deeply embedded into social structures featuring extensive labour force participation, extended self-employment and low basic labour standards. Legal support for workers' organized collective action is very limited. In that unfavourable context, the high level of the minimum wage relative to the average income indicates that minimum wage acts as a norm that is probably different from the one conventionally attributed to it, namely, providing income security for unskilled and unorganized workers. At the same time, since individual and collective terminations present a high degree of regulation, the mandated cost of hiring remains at a level below the rest of the world average. Moreover, *informal* labour institutions are generally correlated with negative migration rates. The high gender ratio of skilled emigration indicates that the proportion of the skilled workers who migrate is higher for women than for men. In other words, the brain drain from countries with *informal* labour institutions to advanced OECD economies exhibits a significant gendered dimension. The cluster composition shows that most Sub-Saharan countries, certain transition economies in East and South-East Asia (Cambodia, China, Lao and Vietnam), in Caucasus and Central Asia (Georgia, Tajikistan and Uzbekistan), and the poorest Latin American and Caribbean countries (Bolivia, Haiti and Paraguay) can be typified by the prevalence of such *informal* labour institutions (Fig. 4.4).

Countries with *paternalistic* labour and production relation governance are typified by both limited labour force participation and notably gendered labour force structure. The gender ratio of skilled emigration is low. The proportion of women employed as family workers is high, but lower than in countries with *informal* labour governance. As for *informal* labour governance, low guarantees are associated with freedom of association and collective bargaining rights. The high degree of regulation of standard employment contracts only refers to the regulation of individual dismissals. Most of the developing countries[25] that were identified by Rudra (2007) as *Protective welfare states*, and defined as targeting protection to selected individuals prior to an extended commodification, actually fit fairly well with our *paternalist* model of labour governance.

A last group, called *idiosyncratic,* features institutional arrangements that are different from those that characterizing the four preceding clus-

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[25] Egypt, El Salvador, India, Iran, Morocco, Tunisia, Turkey.
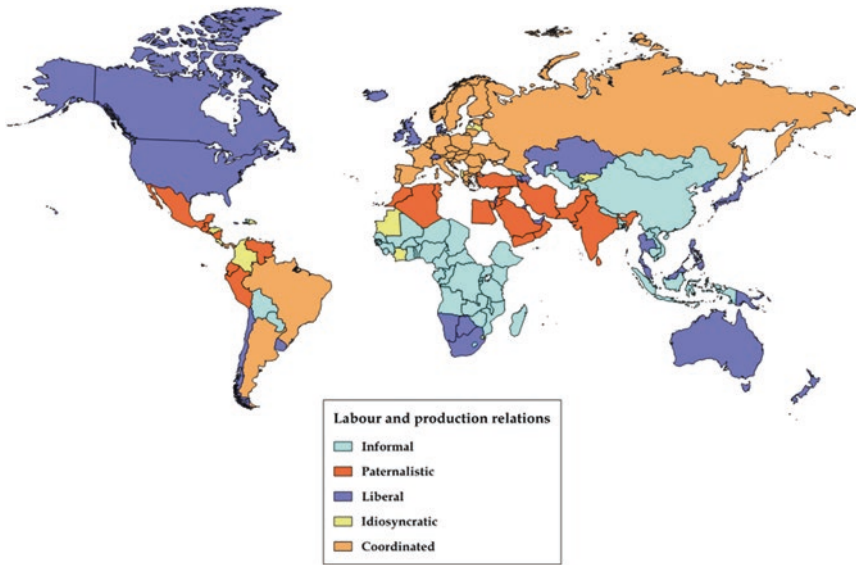
Fig. 4.4 Map of labour market and production relations models

ters. Those *idiosyncratic* labour institutions are very different from one country to another, with the exception, however, of the degree of wage bargaining decentralization that seems to be a shared feature. Most often, *idiosyncratic* labour and production relation governance are associated with a lower-middle level of income. Numbers of countries with *idiosyncratic* labour governance have also experienced situations of widespread political instability and/or civil conflicts and wars in recent years.

4.5   Conclusion

The purpose of this chapter was to assess the similarities and discrepancies between labour institutional patterns of an extended sample of developed, emerging and developing countries. Our empirical analysis provides evidence of the existence of four distinct models of labour and production relation governance. Two have been labelled in accordance with VoC literature and Hall and Soskice (2001). *Informal* and *paternalistic* labour and production relations governance refer to two other models that are more frequently observed for developing countries. The composition of

the clusters shows that emerging and developing countries are distributed across the five clusters as regards their labour and production relations governance, while high-income OECD countries are simply classified as *liberal* or *coordinated*.

Appendix

Table 4.5 Selected variables and data sources

Variables	Label	Sources of data
Labour force		
Labour force participation rate (%)	*lfp*	*Keys Indicators of labour market (KILM) 6th edition, ILO*
Labour force participation rate, women to men ratio	*lfp_f*	
Labour force participation rate (under 25/25–54 years)	*lfp_y*	
Basic standards		
Child labour index	*cl*	*Bazilier (2008); WB (2007) KILM 6th ed. and OECD (2008)*
Share of working poor in working population	*wkp*	
International mobility		
Average annual net migration rate	*mig*	*UNPD (2009)*
Gender ratio of high skilled emigration	*mig_sf*	*Docquier et al. (2007)*
Wage status in employment		
Minimum wage normalized on GDP (PPP) per capita	*minw*	*Saget (2008)*
Wage and salaried workers in working population	*wsw*	*KILM 6th ed., ILO*
Protection of standard employment contracts		
Rigidity of hours index	*hours*	*Doing Business, WB*
Mandated cost of worker dismissal index	*mcd*	*Doing Business, WB*
Mandated cost of hiring index	*mch*	*Doing Business, WB*
Difficulty of redundancy index	*redun*	*Doing Business, WB*
Representation of workers		
Collective bargaining centralization index	*barg*	*EFW (2009)*
FA and right to CB index	*facb*	*Bazilier (2008)*
Ratifications of ILO conventions index	*ratif*	*Bazilier (2008)*
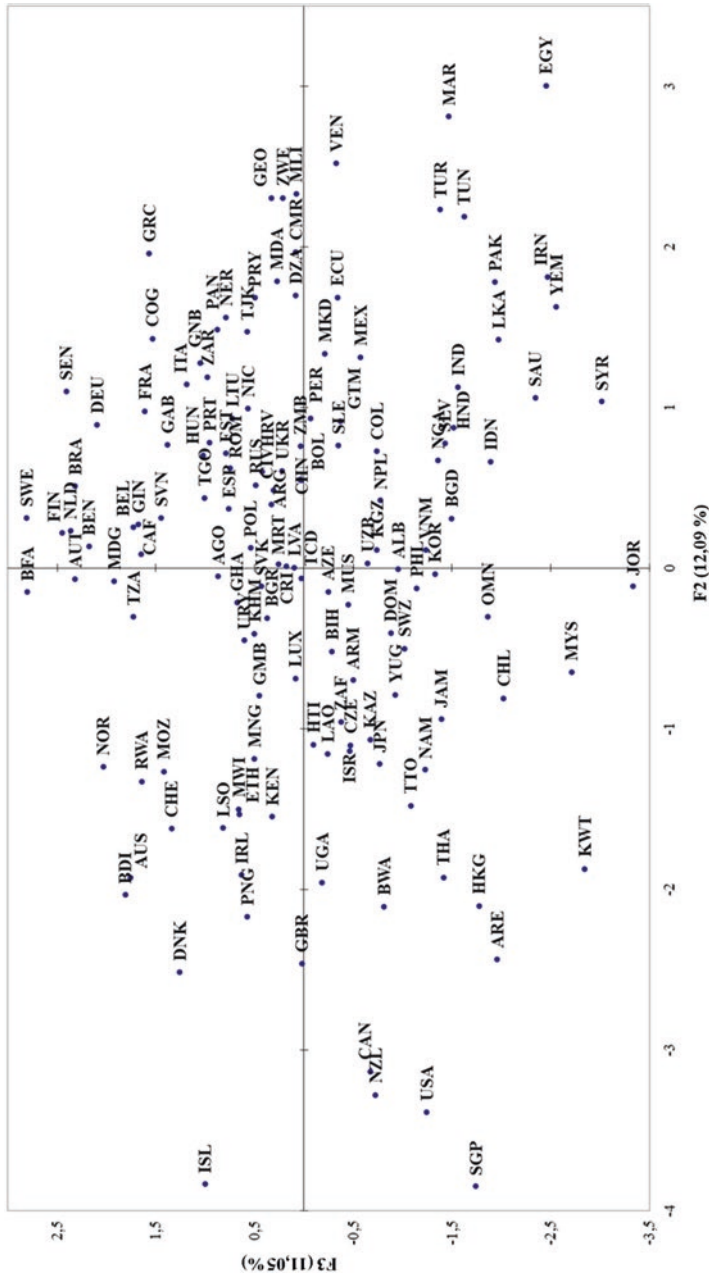
Fig. 4.5   Projection of countries on the second factorial plan. Data source: Author's calculations

Table 4.6 Number of clusters

	Number of clusters			
	2	3	4	5
Between variability (BV)	3.30	5.30	5.53	6.03
Within variability (WV)	11.73	10.41	9.50	9.00
F criteria (BV/WV)	0.28	0.44	0.58	0.67
F increase		0.58	**0.31**	0.15
BV after consolidation (BVac)	2.98	4.62	5.20	5.79
Consolidation rate (BV – BVac)/BV	0.11	0.15	**0.06**	0.04

Data sources: Author's calculations

Table 4.7 Additional variables and data sources

Variables	Label	Sources of data
Gross national income per capita	*gni*	*GNI per capita, Atlas method, World Bank (2006)*
Human development index	*hdi*	*Human development index 2005 (values), UNDP 2010*
Gini index	*gini*	*WB (2007)*
Union density	*union*	*ILO (1997) and Lawrence and Ishikawa (2005)*

Table 4.8 Data summary statistics—averages for 139 countries[a]

Variables		High-income OECD	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle-East and North Africa	Sub-Saharan Africa	South Asia	All
lfp	Mean	61.8	69.1	58.4	64.1	55	73.3	62	64.8
	St. dev	6.2	6.5	5.6	4.2	9.3	10.1	8.3	9.7
lfp_f	Mean	0.782	0.778	0.761	0.621	0.352	0.797	0.518	0.711
	St. dev	0.071	0.142	0.105	0.088	0.091	0.144	0.213	0.176
flp_y	Mean	0.624	0.617	0.476	0.645	0.557	0.701	0.696	0.617
	St. dev	0.158	0.113	0.113	0.107	0.107	0.125	0.054	0.144
cl	Mean	1.2	2.8	1.8	2.4	2.6	4.3	3.6	2.7
	St. dev	0.4	0.9	0.8	0.8	0.9	0.9	1.1	1.4
wkp	Mean	6.8	48.2	29.7	24.2	24.7	80.6	74.2	43.7
	St. dev	2.9	28.7	28.6	18.6	21.2	16.1	16	34.4
mig	Mean	4.1	1.7	-2	-2.9	2.9	-0.6	-1.2	0.2
	St. dev	3	6.5	3.6	2.8	5.7	2.8	1.1	4.4
mig_sf	Mean	1.102	1.583	1.309	1.214	1.049	1.845	1.786	1.423
	St. dev	0.297	0.594	0.336	0.206	0.305	0.906	0.48	0.63
minW	Mean	0.511	0.603	0.4	0.56	0.732	0.978	0.814	0.66
	St. dev	0.125	0.348	0.271	0.324	0.228	0.608	0.444	0.449
wsw	Mean	85	52	72.4	58.5	64.2	37.6	33	64.1
	St. dev	6.4	25.6	16.6	13.2	19	29.3	17.9	23.9
hours	Mean	30.7	12.2	35.3	31.4	23.3	29.8	8	28.2
	St. dev	20.6	17.3	18.9	19.5	19	17.8	11	19.7
mcd	Mean	2.3	5.9	2.4	6.2	5.2	4.5	8.2	4.3
	St. dev	2.5	3.1	1.8	2.9	3.8	2.8	2	3.1
mch	Mean	5.6	4.2	7.5	4.8	5.4	3.7	3.2	5.1
	St. dev	3.3	2.4	2	2.4	2.1	2.8	2	2.9
redun	Mean	22.2	23.8	28.8	22.4	35	39.2	54	30.6
	St. dev	21.1	21.4	16.8	31.1	28.4	19.5	18.2	23.5

(continued)

Table 4.8 Continued

Variables		High-income OECD	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle-East and North Africa	Sub-Saharan Africa	South Asia	All
barg	Mean	6.4	4.7	4.5	5.5	5	5.7	5.4	5.4
	St. dev	1.8	1.2	0.7	1.4	1.1	1.5	0.5	1.5
facb	Mean	4.6	2.5	3.4	3.4	1.5	2.5	2.4	3.1
	St. dev	0.6	1.2	1.5	0.9	0.5	1.1	0.5	1.3
ratif	Mean	4.1	1.3	3.5	3.9	2.6	2.9	2.6	3.2
	St. dev	1.3	0.7	1.3	1.2	1.6	0.9	1.5	1.4
	N	24	13	26	21	12	38	5	139

[a]Pairwise deletion was used for handling missing data

Data sources: Author's calculations on data collected from KILM, ILO, Bazilier (2008), WB (2007), OECD (2008), UNPD (2009), Docquier et al. (2007), Saget (2008), Doing Business, EFW (2009); for details, see Table 4.5

Table 4.9 Simple correlations between active variables[a]

	lfp	lfp_f	lfp_y	CI	wkp	mig	mig_sf	minW	vsw	hours	mcd	mch	redun	barg	facb	ratif
lfp	1															
lfp_f	0.60	1														
lfp_y	0.66	0.14	1													
CI	0.60	0.12	0.49	1												
wkp	0.48	0.18	0.38	0.74	1											
mig	0.01	−0.02	−0.05	−0.21	−0.22	1										
mig_sf	0.34	0.13	0.21	0.46	0.44	−0.15	1									
minW	0.32	0.02	0.37	0.55	0.44	−0.13	0.24	1								
vsw	−0.29	0.05	−0.31	−0.58	−0.40	0.40	−0.30	−0.31	1							
hours	−0.03	0.06	−0.05	0.02	0.01	−0.18	−0.02	0.00	0.04	1						
mcd	0.08	−0.19	0.11	0.26	0.08	−0.22	0.10	0.15	−0.39	−0.08	1					
mch	−0.36	−0.09	−0.32	−0.29	−0.23	−0.03	−0.08	−0.08	0.17	0.42	−0.22	1				
redun	−0.01	−0.10	0.05	0.21	0.13	−0.18	0.21	0.08	−0.23	0.17	0.16	0.12	1			
barg	−0.07	0.03	0.08	−0.07	−0.05	0.03	−0.10	0.10	0.09	0.15	0.05	0.04	0.14	1		
facb	−0.23	0.22	−0.28	−0.54	−0.48	0.15	−0.30	−0.18	0.45	0.10	−0.24	0.20	−0.24	0.20	1	
ratif	−0.30	−0.06	−0.13	−0.35	−0.37	0.01	−0.12	−0.14	0.23	0.29	−0.10	0.33	0.08	0.27	0.44	1

[a]Pairwise deletion was used for handling missing data

Note: Bold characters denote a significant correlation at the 5% level

Data sources: Author's calculations on data collected from KILM, ILO, Bazilier (2008), WB (2007), OECD (2008), UNPD (2009), Docquier et al. (2007), Saget (2008), Doing Business, EFW (2009); for details, see Table 4.5

References

Acemoglu, Daron, and Jörn-Steffen Pischke. 1999. The Structure of Wages and Investment in General Training. *Journal of Political Economy* 107 (3): 539–572.

Amable, Bruno. 2003. *The Diversity of Capitalism*. Oxford: Oxford University Press.

Barrientos, Armando. 2009. Labour Markets and the (Hyphenated) Welfare Regime in Latin America. *Economy & Society* 38 (1): 87–108.

Bazillier, Rémi. 2008. Core Labour Standards and Economic Development: Impact on Long-term per Capita Income. *World Development* 36 (1): 17–39.

Berg, Janine and David Kucera. 2008. Labour Institutions in the Developing World: Historical and Theoretical Perspectives. In *In Defense of Labour Market Institutions. Cultivating Justice in the Developing World*, ed. J. Berg and D. Kucera. Basingstoke and New York: Palgrave Macmillan, ILO.

Bescond, David, Anne Chataignier, and Farhad Mehran. 2003. Seven Indicators to Measure Decent Work: An International Comparison. *International Labor Review* 142 (2): 179–211.

Boyer, Robert. 2002. Vingt ans de recherches sur le rapport salarial : un bilan succinct. In *Théorie de la régulation, l'état des savoirs*, ed. R. Boyer and Y. Saillard. Paris: La Découverte.

———. 2005. How and Why Capitalisms Differ. *Economy & Society* 34 (4): 509–557.

Cook, Maria Lorena. 1998. Toward Flexible Industrial Relations? Neo-liberalism, Democracy, and Labor Reform in Latin America. *Industrial Relations* 37 (3): 311–336.

Dike, Michael Enwere. 2003. Revisiting the Classics of Development Economics: Lewis' Surplus Labour Theory and Current Debates on Development. *African Development Review* 15 (2/3): 297–338.

Docquier, Frédéric, Lindsay Lowell, and Abdeslam Marfouk. 2007. *Migration Database with Gendered Breakdown 1990–2000*. Washington, DC: The World Bank.

EFW. 2009. *Economic Freedom of the World Annual Report* [historical data]. Edited by J.D. Gwartney and R. Lawson. Vancouver: Economic Freedom Network (EFN), Fraser Institute.

Elson, Diane. 1999. Labor Markets as Gendered Institutions: Equality, Efficiency and Empowerment Issues. *World Development* 27 (3): 611–627.

Estévez-Abe, Margarita. 2009. Gender, Inequality, and Capitalism: The "Varieties of Capitalism" and Women. *Social Politics: International Studies in Gender, State and Society* 16 (2): 182–191.

Freeman, Richard B. 2010. Labor Regulations, Unions, and Social Protection in Developing Countries: Market Distortions or Efficient Institutions? In *Handbook of Development Economics*, ed. D. Rodrik and M. Rosenzweig. London and Amsterdam: North Holland.

Hall, Peter A., and David Soskice. 2001. An introduction to Varieties of Capitalism. In *Varieties of Capitalism: Institutional Sources of Comparative Advantage*, ed. P.A. Hall and D. Soskice. New York: Oxford University Press.

Harris, John R., and Michael P. Todaro. 1970. Migration, Unemployment and Development: A Two-Sector Analysis. *American Economic Review* 60 (1): 126–142.

ILO. 1993. *Resolution Concerning the International Classification of Status in Employment (ICSE)*. Adopted by Fifteenth International Conference of Labour Statisticians, Geneva.

———. 2009. *Key Indicators of the Labour Market (KILM database)*. 6th ed. Unit Employment Trends (EMP/TRENDS).

Karamessini, Maria. 2008. Still a Distinctive Southern European Employment Model? *Industrial Relations Journal* 39 (6): 510–531.

Kucera, David, and Leanne Roncolato. 2008. Informal Employment: Two Contested Policy Issues. *International Labour Review* 147 (4): 321–348.

Lawrence, Sophia, and Junko Ishikawa. 2005. Social Dialogue Indicators, Trade Union Membership and Collective Bargaining Coverage: Statistical Concepts, Methods and Findings. *Integration Paper No.* 59 (196 pp). Geneva: International Labour Office.

Lewis, W. Arthur. 1954. Economic Development with Unlimited Supplies of Labour. *Manchester School* 22 (2): 139–191.

Mrkić, Srdjan, Tina Johnson, and Michael Rose. 2010. *The World's Women 2010*. New York: United Nations, Department of Economic and Social Affairs.

OECD. 2008. Is Work the Best Antidote to Poverty? In *Growing Unequal? Income Distribution and Poverty in OECD Countries*, ed. OECD. Paris: OECD Publishing.

Pryor, Frederic L. 2005. Market Economic Systems. *Journal of Comparative Economics* 33 (1): 25–46.

Rama, Martin. 1997. Organized Labor and the Political Economy of Product Market Distortions. *World Bank Economic Review* 11 (2): 327–355.

Rodrik, Dani. 2000. What Drives Public Employment in Developing Countries? *Review of Development Economics* 4 (3): 229–243.

Ronconi, Lucas. 2010. Enforcement and Compliance with Labor Regulations in Argentina. *Industrial & Labor Relations Review* 63 (4): 719–736.

Rubery, Jill. 2009. How Gendering the Varieties of Capitalism Requires a Wider Lens. *Social Politics: International Studies in Gender, State and Society* 16 (2): 192–203.

Rudra, Nita. 2007. Welfare States in Developing Countries: Unique or Universal? *The Journal of Politics* 69 (2): 378–396.

Saget, Catherine. 2008. Fixing Minimum Wage Levels in Developing Countries: Common Failures and Remedies. *International Labour Review* 147 (1): 27–45.

Sangheon, Lee, Deirdre McCann, and Nina Torm. 2008. The World Bank's "Employing Workers" Index: Findings and Critiques—A Review of Recent Evidence. *International Labour Review* 147 (4): 416–432.

Standing, Guy. 2008. The ILO: An Agency for Globalization? *Development and Change* 39 (3): 355–384.

UNPD. 2009. *International Migration Report 2009*. New York: Department of Economic and Social Affairs, United Nations Population Division (UNPD).

Wood, Geof, and Ian Gough. 2006. A Comparative Welfare Regime Approach to Global Social Policy. *World Development* 34 (10): 1696–1712.

World Bank. 2007. *World Development Indicators* (WDI database). Washington, DC: World Bank.

5

Education and Training

Coralie Reslinger

5.1 Introduction

The political consensus according to which education is central to long-run economic development[1] is strongly supported by economic theory. A skilled labour force is essential, as "education enhances one's ability to receive, decode, and understand information" (Nelson and Phelps 1966). At microeconomic level, access to education has been

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[1] When the United Nations General Assembly adopted Resolution 57/254 in December 2002 to set up the Decade of Education for Sustainable Development (2005–2014), it was obvious that there was broad consensus on education as a necessary condition for development: "…the internationally agreed development goal of achieving universal primary education, in particular, so that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling" was reaffirmed.

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highlighted as a crucial determinant for individual or family structural poverty and vulnerability to economic shocks (Banerjee and Duflo 2011). Sen (2000), for instance, has argued that illiteracy and innumeracy, by limiting people's ability to understand and invoke their legal rights, constitute forms of insecurity in themselves, since they restrict the poor's ability to participate in the political arena, and have negative impacts on their living conditions. At a more aggregate level, skills and accumulated knowledge are identified as key factors in endogenous growth (Aghion and Howitt 2009). Individual and collective educational choices therefore dramatically influence the speed, as well as the direction, of national development trajectories. Conversely, the institutions concerning education also reflect each country's social priorities. Whereas oligarchic regimes often try to restrain the spread of education, the consolidation of democracy generally requires increasingly educated citizens.

Any germane characterization of national educational systems cannot, however, be founded on the simple analysis of such elementary educational outcomes as school enrolments or literacy rates. Other dimensions, like equity of access to schooling or the particular type of skills that are taught, also exert a crucial influence on the nature of the educational system and, subsequently, on economic development. Educational outcomes are shaped by the specificity of each national educative system, which is itself the result of historical factors and government policies. In consequence, the task of describing the variety of educational systems requires the specific institutional arrangements operating in each national educative system to be clearly assessed, so that they can be compared across nations.

The present chapter aims at identifying educational and training governance models across our sample of developed and developing countries. The study is organized as follows: Section 5.2 gives an overview of the various dimensions that are relevant when one aims at studying educational systems; Section 5.3 presents the indicators used for the classification of Section 5.4. The conclusion is given in the last section.

5.2   The Diversity of Educational Models: An Overview

Education is a key determinant of economic development, whose influence is transmitted by different channels. A growing literature concerning the impact of education on development has proliferated since the late 1950s. Originally, neoclassical economists focused on the strong microeconomic link between education and wages, stressing the higher productivity, and higher wages, of skilled workers (Schultz 1961; Kendrick 1961; Denison and Poullier 1965). By adding human capital accumulation to the standard growth model (1956), macroeconomists then found that this new production factor could, similarly to physical capital, enhance productive efficiency and even generate growth externalities (Lucas 1988; Aghion and Howitt 2009; Aghion and Cohen 2004). Likewise, the assumption that education plays a crucial role in innovation has been confirmed by the theory of endogenous growth based on R&D. Romer (1990) considers, for example, that schooling is a prerequisite for human capital creation which, in turn, generates new ideas and promotes the development of new products. While Schultz (1961) had already pointed to human capital as enabling the efficient use of new technologies, Lucas (1990) went on to demonstrate that sustained productivity growth requires dynamic matching of human and technical capital. In other words, low human capital endowment could durably prevent technological diffusion for the poorest developing countries.[2]

As for developing economies, imitation and technological adaptation appear to be the main sources of technological improvement.[3] The technology-gap literature has shown that, insofar as the growth rate of productivity tends to be inversely correlated to the initial level of

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[2] Additionally, Barro (1991), in a cross-sectional study involving 98 countries, found a positive relationship between growth rate of real GDP per capita and initial human capital, thereby concluding that poor countries need to increase their minimum education level to be able to catch up.

[3] By opposing two sources of technological progress (measured by productivity growth), imitation and innovation, Aghion et al. (2005), Acemoglu et al. (2006) and Vandenbussche et al. (2006) have shown that economies choose between imitation-led investment and R&D-led investment strategies with respect to their relative proximity to the technological frontier.

productivity, backward economies may develop faster and catch up by adopting foreign technologies (Gerschenkron 1966). Accordingly, the type of educational system that might matter for economic performance could well depend on the level of development. Primary and secondary education levels are essential for growth in poor countries, whereas growth in mature economies depends mainly on higher education.[4]

From what precedes, it follows that seizing technological opportunities is not automatic, with developing economies needing to construct a set of national collective and individual capabilities that suit their productive needs. Abramovitz (1986) has coined the term of "social capabilities",[5] claiming that "the state of education embodied in a nation's population and its existing institutional arrangements constrain it in its choice of technology". Education is a key building block for those social capabilities, since it strengthens "technological capability" (Kim 1980, 1997), "absorptive capacities" (Cohen and Levinthal 1989, 1990), "economic (or techno-economic) competence" (Carlsson and Eliasson 1994) and "national innovative capacity" (Furman et al. 2002). By insisting that innovation is not the result of the sum of individual choices (that of entrepreneur-innovators) but, rather, a process encompassing numerous actors involved in a large institutional network, Innovation system (IS) literature has introduced a major source for differentiating between technological systems. In its broadest acceptation, the innovation system encompasses all upstream institutions and sub-systems, which, like education, condition innovation (Lundvall 1992).[6] The educational system can be considered as a full part of a country's institutional system insofar as it relies on rules that reflect collective preferences and choices regarding priorities, quality and access. As an illustration, Hall and Soskice (2001) or Amable (2003) have shown that liberal market economies have developed education models that are more suitable for flexible labour markets

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[4] See Psacharopoulos (1994), Kiso (1993), Esim (1994), McMahon (1998), Cohn and Addison (1998) and Petrakis and Stamatakis (2002).

[5] "Social capabilities" were first defined in Okhawa and Rosovsky (1973).

[6] The "innovation systems" corpus introduces another source of variety: the scale of analysis. Certain authors, like (Lundvall 1992; Freeman 2002; Nelson 1993; Edquist 1997), are interested in a national innovation system, whereas other authors, like Cooke (2001) or Asheim and Isaksen (2002), have chosen a regional scale; the sectoral point of view (Breschi and Maerba 1997) or even the technological one (Carlsson et al. 2002) can also be adopted.

in which the workforce frequently changes jobs. Equally, certain emerging countries, such as the Philippines, have established educational systems aimed at providing their students with the skills for which global demand is particularly dynamic.

In order to assess the variety of educational models across countries, regions and development levels, our empirical analysis first presents the indicators we use to characterize educational models. The main lines of differentiation of national educational systems are then identified, and subsequently subjected to a process of clusterization.

5.3   Measuring Educational and Training Models

Economic development is conditioned by the efficiency, consistency and orientation of the educational system. National specificities in skill building cannot be detected by simply analysing just one single data dimension such as the commonly used primary, secondary and tertiary school enrolments; all the more so as those outcome measurements are finally not of much help in explaining international differences in economic development (Benhabib and Spiegel 1994; Pritchett 2001). Modes of organization and regulation need to be described in greater depth, by careful observation of a relevant set of indicators for both outcomes and means.

Certainly, the *school enrolment ratio in tertiary education* and Barro and Lee's (2010) *average year of school of people aged 15 and above* do give some idea of the extent to which a given education system can provide the labour market with skilled workers. Yet, these two variables say nothing about the specific skills that are acquired, or about the effective access to education for different parts of the population. Glewwe (2002) has pointed out that improving the quality of education exercises a higher impact on productivity than merely lengthening the time spent in school. In order to account for the quality of the educational system, the *pupil/teacher ratio in primary education* and the *duration of compulsory education* were both used. Access to education was also considered, using the ratio

of *girls to boys in primary and secondary education* as a proxy for eventual discrimination. In order to integrate the main focus of the schooling system into our analysis, three variables were used: *enrolment in technical and vocational education*; the *percentage of graduates in science as a percentage of the total number in all programmes*; and the *percentage of graduates in engineering and industrial production*. Likewise, the degree of internationalization of the educational system has been proxied by the indicator of *international mobility,* which gauges educational system dependency on the international labour and skills market. In addition, the extent to which domestically produced skills are exportable is measured by the *number of H1-B visas* (for specialty occupations[7]) delivered by the USA to each country in the sample. Finally, the organization and financing of the educational system are described by the respective proportion of state and private sector involvement in the provision of education. Firstly, *public spending on education (as a percentage of government expenditure)* indicates the state's investment in education. Secondly, the *proportion of public spending on education* geared towards secondary and tertiary education provides information about the orientation of the state's financial effort. Thirdly, the *proportion of private school enrolment in primary and secondary education* measures the private sector's contribution to the schooling system.

Our initial dataset is made up of these 12 variables that were observed in 2005–2006 for 154 countries. When observations were lacking, we retained the nearest data before or after the reference year and, each time that was possible, we linearly extrapolated from data available in the dataset.[8] At a second stage, the initial dataset was adjusted by eliminating those countries for which less than 50% of observations were known.[9]

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[7] A *specialty occupation* is defined as requiring theoretical and practical application of a body of highly specialized knowledge in a field of human endeavour (including architecture, engineering, mathematics, physical sciences, social sciences, biotechnology, medicine and health, education, law, accounting, business specialties, theology, and the arts) and requiring the attainment of a bachelor's degree or its equivalent as a minimum. H-1B work-authorization is strictly limited to employment by the sponsoring employer.

[8] This strategy appeared appropriate since we mainly used time-invariant structural variables.

[9] The representativity of the remaining sample was controlled for. Note that 44n% of the individuals have complete information or suffer from only one single missing variable.

The final dataset thus consists of 142 countries.[10] In the overall analysis, the role of the remaining missing data has been cancelled out by using the corresponding mean values.

Summary statistics and simple correlations are shown in Tables 5.6 and 5.7 in the Appendix to this chapter. These statistics reveal that our selected variables perform as expected, with a more developed educational and training system exhibiting, on average, higher educational quality. Other interesting correlations are also worth noting. First, private education generally seems, in our sample of 144 countries, to serve as a substitute rather than as a complement for public schools, especially in developing countries. Second, governments assign a large share of their expenditure towards education in backward educational systems, and that effort tends to be directed towards generic skills rather than vocational formation. On the contrary, vocational systems are dominant in more developed and higher quality systems. Third, the fact that international mobility is higher in underdeveloped educational systems suggests that certain poor countries obtain the skills they lack from outside, whilst others export their skilled labour as a commodity.

In order to delve deeper into the exploration of education systems, and to analyse the interrelationships among the set of collected variables, the first step has been to construct a dataset able to accurately describe existing educational systems. In the following section, we proceed to the statistical analysis of our 12 selected active variables.

5.4   Models of Educational and Training Governance

5.4.1 The Main Patterns of Differentiation between National Educational Systems

Principal component analysis (PCA) consists in analysing proximities within the factorial space in order to understand the links between vari-

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[10] Bosnia & Herzegovina, Congo Dem. Rep., Haiti, Libya, Macedonia, Nigeria, North Korea, Puerto Rico, Serbia, Somalia, Turkmenistan and Virgin Islands were eliminated.

Table 5.1 PCA Eigenvalues

	PC1	PC2	PC3	PC4	PC5	PC6
Eigenvalues	3.95	1.34	1.18	1.14	0.97	0.94
% of variance	30.38	10.29	9.07	8.81	7.45	7.21
Cumulative %	30.38	40.67	49.74	58.54	65.99	73.2

Data sources: Author's calculations on data collected from World Bank, WDI, UNESCO, US Department of Homeland Security, Barro and Lee (2010); for details, see Table 5.6

ables, and the similarities among statistical units. It should be noted that three categorical variables, describing the geographical localization and socioeconomic situation of each country, have been added as supplementary variables.[11]

Table 5.1 shows PCA eigenvalues. Even though four components have eigenvalues superior to 1, the scree plot shows a significant break after the second component. Accordingly, the first two principal components have been given priority.[12] Figure 5.1 reports our 12 active variables projection on the first factorial plan, while Fig. 5.2 shows the countries' projection on the same plan. The active and supplementary variables correlations with each factor are reported in Table 5.2.

The horizontal axis of Fig. 5.1 mostly captures the strong correlation between quality of education, as measured by duration, gender discrimination and the ratio of pupil per teacher (*Gender Index*, *Duration*, and *Pupil/Teacher*), the labour force education level measured by enrolment in tertiary and the average length of schooling (*Enrol3, YearSc*), and the pro-high school orientation of national expenditure (*Ratio23*). This first component therefore compares countries according to the extent and degree of inclusiveness of their educational and training model. Poorly inclusive and efficient systems are located to the left of the first plan, while very sophisticated and complete systems can be found on the right. This result is confirmed by the country projection on the first plan (Fig. 5.2), since countries like Denmark, Finland, New Zealand, Norway, Sweden or USA, where students generally pursue long, high-quality education programmes, are all situated to the right of the plan.

[11] Note that these variables do not affect the construction of the principal factors.

[12] The first axis explains 30.38% of the total variance, the second, 10.29%. In consequence, we capture 40.67% of the complete information of the dataset on the first plan only.

Fig. 5.1 Projection of active variables on the first factorial plan. *Data source*: Author's calculations; see Table 5.6 for details

By contrast, on the left side, countries like Afghanistan, Guinea, Guinea-Bissau, Mozambique, Niger or Sierra-Leone exhibit low levels of educational quality. Not surprisingly, the supplementary variables correlations with this first component, which are reported in Table 5.2, show that poor countries, with low Human Development Index (HDI), mostly Sub-Saharan African or South Asian, have fairly undeveloped educational systems, and that industrialized or emerging countries, with high or very high HDI, have the most inclusive and efficient systems.
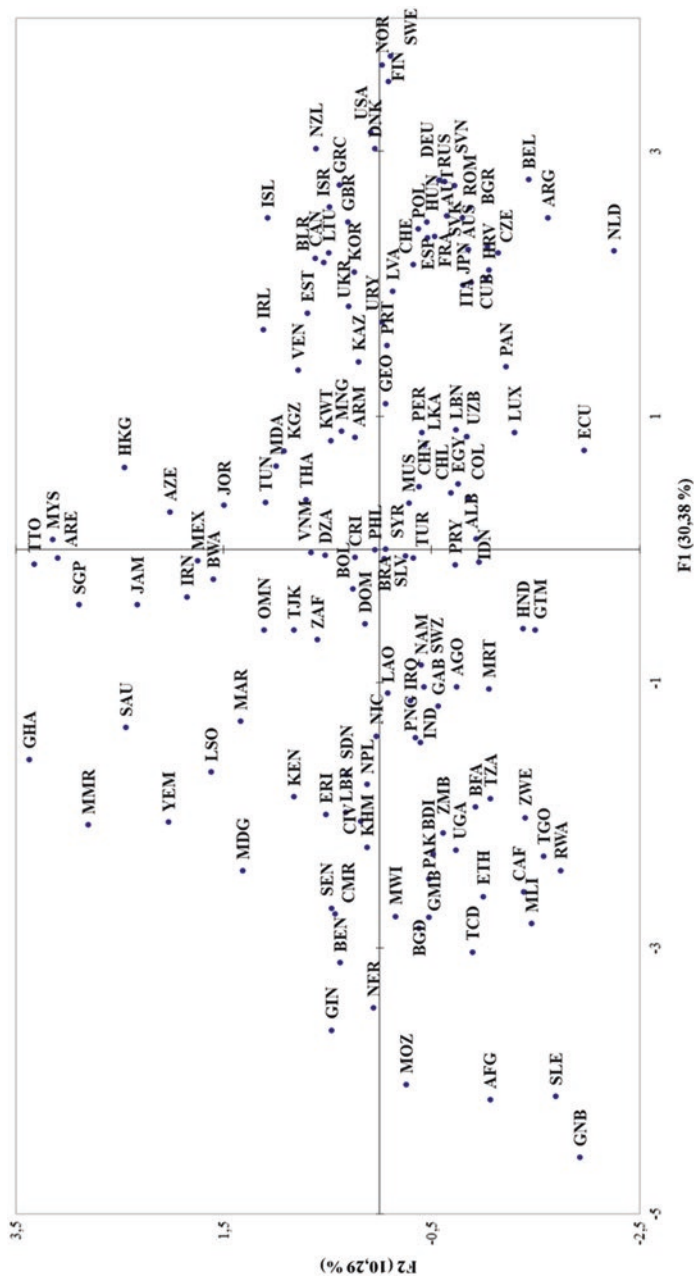
Fig. 5.2 Projection of active individuals on the first factorial plan. *Data source:* Author's calculations

Table 5.2 Active/supplementary variable-axes correlations[a]

	PC1	PC2
Public spending on education	−0.342	**0.602**
Public spending for 2 & 3	**0.572**	0.245
Private enrolment	−0.170	−0.227
Gender index	**0.727**	0.194
Pupil/Teacher	**−0.827**	−0.243
Duration	**0.647**	−0.131
Technical/Vocational	0.475	**−0.535**
Science graduates	−0.198	**0.528**
Engineering graduates	0.225	0.128
H1B	0.046	**0.383**
Mobility	−0.215	−0.131
Years of schooling	**0.830**	0.066
Tertiary enrolment	**0.890**	0.000
OECD	**2.5**	−0.24
East Asia and Pacific	−0.2	**0.83**
Europe and Central Asia	**1.56**	−0.09
Latin America & Caribbean	0.34	−0.14
Middle-East and North Africa	−0.28	**0.97**
Sub-Saharan Africa	**−2.2**	−0.3
South Asia	**−1.98**	−0.44
Low Human Development Index (HDI)	**−2.41**	−0.25
Middle HDI	−0.05	0.19
High HDI	**1.12**	0.14
Very high HDI	**2.27**	0.02
Industrialized countries	**1.98**	−0.05
Emerging countries[b]	**0.53**	0.01
Developing countries	−0.46	0.33
Less developed countries	**−2.52**	−0.26

[a]For supplementary variables, significant correlations at a 5% level are shown in
bold characters

[b]Emerging countries are those that have been considered as such by at least one
of the following institutions: Boston Consulting Group, BNP Paribas, IMF or
Standard and Poor's

Data sources: Author's calculations on data collected from World Bank, WDI,
UNESCO, US Department of Homeland Security, Barro and Lee (2010); for
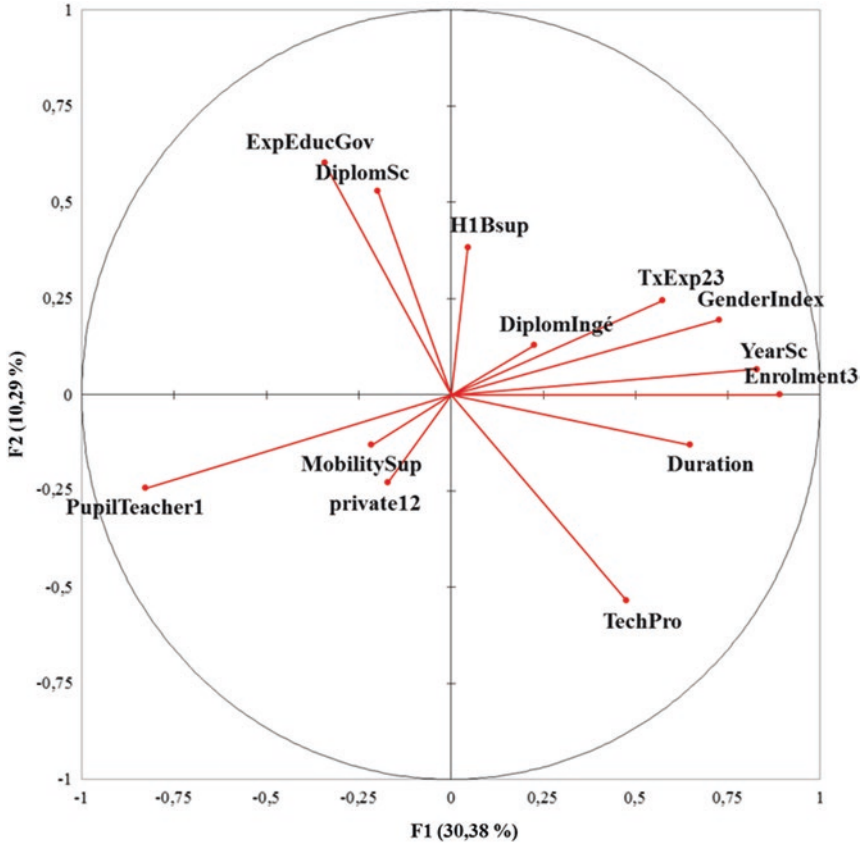details, see Table 5.6

The second component (PC2) is highly loaded by various indicators of the orientation of educational systems. Systems favouring technical and vocational curricula are located at the bottom of the graph (*TechPro*); they are differentiated from the systems where efforts are more oriented towards general and scientific skills (*ExpEduc*, *DiplomSc*)

and, more surprisingly, from the systems exporting specialized workers to developed countries (*H1B*). The Congo Republic, Ecuador and the Netherlands are representative of such professional and vocational oriented systems. Ghana, Malaysia, Singapore, Trinidad and Tobago or United Arab Emirates have developed exportable skills systems. It is worth noticing that the bulk of our sample's East Asian and MENA countries stand at the top of the plan, where systems are more generic skills- and science-oriented.

In order to test the robustness of the PCA results, twenty-five bootstrap replications of the initial sample were implemented, and confidence intervals for the projected variables coordinates were computed. Whereas the variables correlated along the first component are correctly represented, those of the second component are not, and their interpretation requires further discussion. Insofar as *DiplomSc* and *ExpEduc* have ambiguous positions on the second axis, we need to be very cautious when commenting on that second dimension. The position of these two variables may be due to a high number of missing values and to the existence of outliers. A projection of our twelve variables for the dataset, restricted to those countries with complete information, reveals a strong correlation, at the top of the second axis, between *H1B* and *international mobility, ExpEduc*. In addition, *DiplomSc* is no longer correlated with that component for this restricted subsample.[13] We can consider, with a fairly high degree of robustness, that the second component opposes professionalizing education systems (at the bottom) and outward-oriented systems (at the top). Whereas the former are geared towards the satisfaction of local labour market needs, the latter are aimed at responding to global labour market needs.

Now that the main patterns of differentiation between our national educational systems have been identified, we can present the results of the ensuing classification.

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[13] These results are supported by the confidence intervals generated by the bootstrap replications.

5.4.2 The Three Models of Educational and Training Governance

A rigorous identification of the varieties of educational models can be obtained by adopting a classification approach. As explained in Chap. 3, a mixed classification procedure has been carried out: a preliminary hierarchical cluster analysis is consolidated[14] through k-means-like iterations aimed at increasing inter-cluster variance while minimizing intra-cluster variance. Since such a procedure forces each individual into one or other of the identified clusters, a supplementary cluster (the *idiosyncratic* cluster) has been created in order to best group all the countries whose position in the initial multidimensional plan is too close to the barycentre.[15] Those countries generally have such specific educational systems that they cannot be classified into clear-cut groups. In other words, they differ from clearly classified countries, whilst also differing from other countries in their *idiosyncratic* cluster.

The cluster analysis allows us to identify three fundamental types of education system in the world, plus the idiosyncratic group (Table 5.3). Tables 5.4 and 5.5 show the mean value of each active and supplementary variable for each cluster.

The *neglected educational system* brings together countries that are characterized by low quality schooling, overcrowded classes and high gender access inequality. The public financial effort is low and essentially geared towards primary education. Private education share predominates, in order to compensate for the paucity of public education. The short compulsory school duration does not encourage parents to invest in their children's education (low *Ratio23*). Accordingly, average years of schooling in the population, and tertiary enrolment, are very low. Moreover, specialization choice is limited, and productive courses are neglected (low

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[14] The so-called relevant partition, i.e., the relevant number of clusters, is derived from the analysis of the provided dendrogram and the analysis of two indicators that respectively measure (i) the improvement of the inter- to intra-cluster variance ratio from one given partition to another, and (ii) the impact of *k*-means consolidation on that ratio.

[15] More specifically, the standardized Euclidian distance between these countries and the barycentre is below half the median distance.

Table 5.3 Classification of countries in the different clusters

Cluster 1—*Universal education* (45 countries)

Argentina	Australia	Austria	Belarus	Belgium
Bulgaria	Canada	**Croatia**	Cuba	**Czech Republic**
Denmark	**Ecuador**	Estonia	Finland	France
Georgia	Germany	Greece	**Hungary**	Iceland
Ireland	**Israel**	Italy	Japan	**Korea, Rep.**
Latvia	Lithuania	Luxembourg	Netherlands	New Zealand
Norway	Panama	**Poland**	**Romania**	**Russia**
Slovak Rep.	**Slovenia**	Spain	Sweden	Switzerland
Ukraine	U.K.	United States	**Uruguay**	Uzbekistan

Cluster 2—*Neglected education* (45 countries)

Afghanistan	Angola	Bangladesh	Benin	Burkina Faso
Burundi	Cambodia	Cameroon	Central African Rp.	Chad
Congo, Rep.	**Cote d'Ivoire**	Eritrea	Ethiopia	Gabon
Gambia, The	Guatemala	Guinea	Guinea-Bissau	Honduras
India	Iraq	Kenya	Lao PDR	Liberia
Madagascar	Malawi	Mali	Mauritania	Mozambique
Myanmar	Nepal	Niger	**Pakistan**	Papua New G.
Rwanda	Senegal	Sierra Leone	Sudan	Swaziland
Tanzania	Togo	Uganda	Zambia	**Zimbabwe**

Cluster 3—*Upgrading export-oriented education* (30 countries)

Albania	Armenia	Azerbaijan	Botswana	**Brazil**
Chile	**Colombia**	**Dominican Rp.**	Ghana	Hong Kong
Iran	Jamaica	**Jordan**	Kuwait	Kyrgyz Republic
Lebanon	Lesotho	**Malaysia**	Mauritius	**Mexico**
Morocco	Namibia	**Oman**	**Saudi Arabia**	Singapore
Trinidad &Tob.	**Tunisia**	Un. Arab E.	**Venezuela**	Yemen, Rep.

Cluster 4—*Idiosyncratic education* (22 countries)

Algeria	**Bolivia**[a]	**China**	Costa Rica	**Egypt**
El Salvador	**Indonesia**	Kazakhstan	Moldova	Mongolia
Nicaragua	Paraguay	**Peru**	**Philippines**	Portugal
South Africa	**Sri Lanka**	Syrian A. R.	Tajikistan	**Thailand**
Turkey	Vietnam			

[a]Bold characters denote emerging countries, those considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Table 5.4 Compared means of active and supplementary variables by cluster

	Upgrading educational	Universal educational	Narrow educational	Idiosyncratic educational	All
Public spending on education	**19.70**	**12.23**	15.96	15.76	15.52
Public spending for secondary and tertiary	0.68	**0.75**	**0.50**	0.61	0.64
Private enrolment	16.53	*11.06*	**19.90**	**10.13**	14.64
Gender index	**101.10**	**105.62**	**83.98**	*100.19*	96.72
Pupil/Teacher	**22.66**	**15.25**	**46.39**	**24.34**	28.21
Duration	8.62	**10.16**	**7.07**	8.95	8.69
Technical/ Vocational	**11.33**	**47.32**	**22.81**	27.43	29.31
Science graduates	*11.07*	**7.70**	10.29	8.31	9.17
Engineering graduates	12.26	13.17	**8.97**	12.61	12.01
H1B	*4153.70*	1564.74	903.70	655.66	1662.7
Mobility	383.83	14.82	3371.57	1.80	1203.4
Years of schooling	6.52	**9.71**	**3.36**	6.44	6.64
Tertiary enrolment	**23.90**	61.47	**4.65**	29.40	30.17
GDP per capita	12,953.2	**23,654.36**	**1672.44**	5653.64	11,695.5
HDI	*0.66*	0.81	**0.38**	0.62	0.61
Gini index	**47.09**	**34.28**	41.98	*43.59*	40.25

Note: Values that significantly differ from those of all other countries at a 5% level (independent samples *t*-test) are in bold; those at a 10% level are in bold and italics

Data sources: Author's calculations on data collected from World Bank, WDI, UNESCO, US Department of Homeland Security, Barro and Lee (2010); for details, see Table 5.6

DiplomInge and *TechPro*). By contrast, student's mobility is much higher than in the other groups. The weakness of this education system helps explain why students do cross borders to enrol outside of their country of origin.

Given the characteristics that have just been described, it is not surprising that the bulk of the low HDI poorest countries, which are mostly located in Sub-Saharan Africa and South Asia, fall into that group, as shown in Fig. 5.3. Another group, labelled *universal*

Table 5.5 Four-cluster distribution for various informative variables

	Upgrading educational	Universal educational	Neglected educational	Idiosyncratic educational	All
OECD	0.00	0.51	0.00	0.05	0.17
East Asia and Pacific	0.10	0.02	0.09	0.27	0.10
Europe and Central Asia	0.13	0.36	0.00	0.18	0.17
Latin America/ Caribbean	0.27	0.11	0.04	0.27	0.15
Middle-East/ North Africa	0.33	0.00	0.02	0.14	0.10
Sub-Saharan Africa	0.17	0.00	0.73	0.05	0.27
South Asia	0.00	0.00	0.11	0.05	0.04
Total	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Low HDI	0.14	0.00	0.95	0.14	0.35
Middle HDI	0.50	0.07	0.05	0.68	0.25
High HDI	0.36	0.66	0.00	0.18	0.31
Very high HDI	0.00	0.27	0.00	0.00	0.09
Total	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Industrialized countries	0.13	0.67	0.00	0.18	0.27
Emerging countries[a]	0.43	0.29	0.09	0.50	0.29
Developing countries	0.37	0.04	0.22	0.32	0.21
Less developed countries	0.07	0.00	0.69	0.00	0.23
Total	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*

[a]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's
Data sources: Author's calculations

educational system, shows unambiguous characteristics. Average years of schooling are very high compared with the rest of the world, and a large proportion of students enrol in tertiary education. The state is significantly involved in the financing of a full spectrum public educational system, and public spending is mainly directed towards
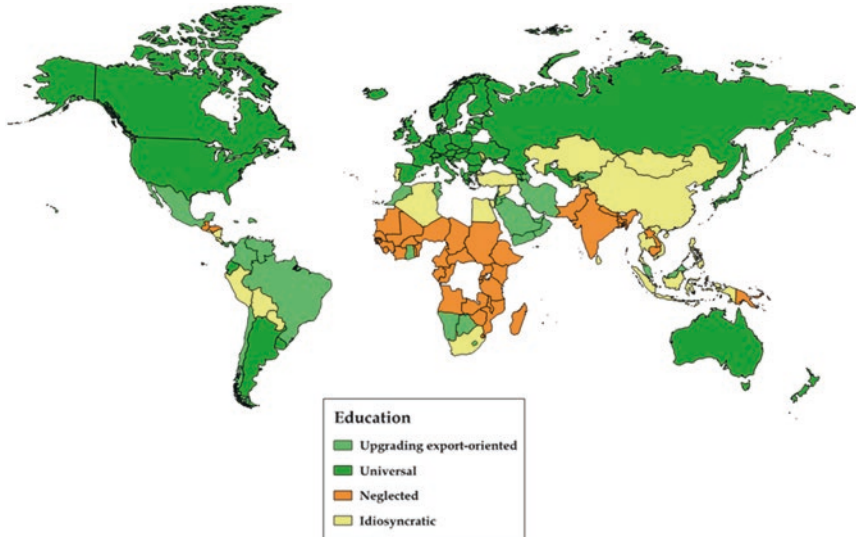
Fig. 5.3 Map of the models of educational and training governance

secondary and tertiary education. By contrast to the other models, in *universal educational systems*, the public and private engagements in education are complementary and not substitute. Educational quality is higher than in the other groups, with equal access for women or men, a small ratio of pupils per teacher in primary school, and relatively long compulsory school duration. Skills are principally created to respond to local labour market needs. In consequence, technical and vocational enrolments are favoured. We also observe that there is no bias towards the creation of general skills, like scientific ones. To summarize, in this type of education system, everyone can choose the study they want to pursue. It is the ideal-type of *democratic educational system*. Countries in this cluster have benefited, and still do, from a high-skilled workforce and, consequently, enjoy a rapid diffusion of ideas and new techniques.

Not surprisingly, this cluster is essentially composed of OECD and Central and Eastern European nations, all characterized by high or very high HDI levels. Central and Eastern European countries have benefited from the legacy of the Soviet system, which had succeeded in organizing

both open and intensive systems of education and ensuring the provision of technical and scientific skills. More strikingly, one third of the countries in this cluster are emerging countries.

These emerging countries have successfully developed *universal educational* models, thereby challenging the linear vision[16] according to which tertiary education comes as a priority only for the countries that are closest to the technological frontier. Insofar as a large skilled labour force is a necessary precondition to benefit from international knowledge spillovers and to engage in technological upgrading, we may reasonably assume that their capacity to achieve a universal educational system has played a key role in those countries' economic emergence. Conversely, sustained high rates of economic growth provide far-sighted governments with the financial capacity to invest a growing amount of collective resources in education, with the population's support being guaranteed by the expected long-run social benefits of human capital investment.

The *upgrading export-oriented educational* model does not merely group countries that have a "middle-of-the-road" educational system but groups, instead, countries that have chosen or been compelled to adopt, sometimes incompletely or partly, very specific systems. As testified by the high *ExpEduc* levels, they all seem to have embarked on ambitious policies of educational improvement. High levels of state intervention have resulted in good quality education, with low gender discrimination, and particular attention being paid to the provision of basic skills, as shown by the low ratio of pupils per teacher. Another strong specificity of this cluster is that it presents an obvious international vocation. Their weak vocational and technical enrolment shows that the priority goal of this type of system is not to provide an operational specialized workforce for the national labour market. Moreover, the skills and knowledge that are created seem to be exportable, as shown by the high number of American H1-B visas (for specialty occupations) awarded to those countries' students and workers. Countries in this cluster seem to have invested in efforts to

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[16] On that vision, see Vandenbussche et al. (2006).

meet international standards of education as a means to tap into the world knowledge stock and to develop more quickly. Developing and emerging countries, of heterogeneous geographical origin and with median HDI are located in this cluster.

5.5   Conclusion

In this chapter, the empirical analysis confirms the assumption that there are many different educational systems among countries. Three specific models of educational governance have been observed across our sample of countries: (1) *neglected educational* model, (2) *universal educational* model, and (3) *upgrading export-oriented* model. Even though the countries that are classified as universal education systems are more developed than the narrow education countries, there is not necessarily a correlation between economic development and educational system sophistication. In that case, we should have found "emerging" countries grouped together in the same cluster. Instead, we observe that three different educational systems prevail among developing countries. For example, India has a *neglected educational* system, Mexico an *upgrading export-oriented* one, Korea the *universalist* model and South Africa and China have adopted more *idiosyncratic* educational systems. In consequence, this diversity of educational systems cannot be understood as a mere succession of steps within a single educational convergence-like process. It is conceivable that a country could leapfrog directly from Cluster 1 to 3, or that a country would follow the 1-3-2 trajectory, or even move from the *upgrading export-oriented* to the *neglected educational* model. Only an analysis of national historical trajectories could confirm this hypothesis. Equally, this result challenges that of Vandenbussche et al. (2006) for whom educational and training systems need to move from a primary-oriented to a tertiary-oriented one as a country develops. Our observation shows that the diversity of educational and training models cannot merely be mapped in terms of development levels.

Appendix

Table 5.6 Statistical sources

Code	Label	Source
ExpEduc	Public spending on education, total (% of government expenditure)	World Bank, WDI and UNESCO
Ratio23	(100 – Public spending on education, primary (% GDP))/Public spending on education, total (% of GDP)	World Bank, WDI and UNESCO
Private12	Average school enrolment, primary & secondary, private (% of total primary & secondary)	World Bank, WDI
Gender	Gender index: Ratio of girls to boys in primary and secondary education (%)	World Bank, WDI
Pupil/Teach	Pupil-teacher ratio, primary	World Bank, WDI and UNESCO
Duration	Duration of education, compulsory	UNESCO
TechPro	Percentage of technical/vocational enrolment as a percentage of the total number of students enrolled in all programmes	UNESCO
DiplomSc	Percentage of science graduates (% of the total number of student graduates in all programmes)	UNESCO
DiplEngineer	Percentage of engineering and production industries graduates (% of the total number of student graduates in all programmes)	UNESCO
H1B	Workers in specialty occupations (H-1B)/Students with tertiary education × 1,000,000	US Department of Homeland Security
Mobility	International mobility/Students with tertiary education × 1,000,000	UNESCO
YearSc	Average years of school (population over age 15)	Barro and Lee
Enrolment3	School enrolment, tertiary (% gross)	World Bank, WDI and UNESCO

Table 5.7 Data summary statistics—mean values for 142 countries (standard deviation)

Variables	All	OECD	East-Asia and Pacific	Central Europe and Asia	Latin America Caribbean	Middle-East and North-Africa	Sub-Saharan Africa	South Asia
Public spending	15.52	12.34	18.68	13.09	14.96	22.11	17.30	11.78
	(5.53)	(2.34)	(5.66)	(3.97)	(4.85)	(6.76)	(5.59)	(2.79)
Public spending for	0.64	0.73	0.69	0.81	0.57	0.67	0.51	0.65
secondary and tertiary	(0.17)	(0.08)	(0.13)	(0.08)	(0.12)	(0.11)	(0.19)	(0.1)
Private enrolment	14.64	15.12	9.30	1.71	21.92	15.61	17.63	30.39
	(16.28)	(18.39)	(9.02)	(1.92)	(12.93)	(19.87)	(15.84)	(24.47)
Gender index	96.72	105.42	97.00	103.54	103.90	97.54	85.40	84.84
	(13.23)	(4.63)	(9.85)	(7.67)	(5.82)	(15.83)	(12.54)	(17.6)
Pupil/Teacher	28.21	13.54	27.74	16.59	24.29	20.56	45.92	45.77
	(16.03)	(3.1)	(9.93)	(3.48)	(5.75)	(5.11)	(14.12)	(20.64)
Duration	8.69	10.71	7.77	9.42	8.76	8.46	7.51	7.40
	(1.92)	(1.3)	(1.69)	(1.18)	(1.48)	(1.71)	(1.79)	(2.19)
Technical/Vocational	29.31	48.09	19.41	35.21	33.02	17.82	21.51	4.36
	(22.97)	(17.29)	(13.3)	(24.18)	(27.94)	(16.47)	(18.22)	(1.72)
Science graduates	9.17	9.83	12.76	6.17	6.04	12.76	10.60	12.89
	(6.16)	(2.98)	(11.01)	(3.68)	(3.24)	(5.96)	(7.76)	
Engineering graduates	12.01	12.82	16.73	13.02	11.58	11.57	8.76	0.61
	(6.5)	(5.13)	(7.74)	(5.69)	(6.18)	(8.3)	(6.27)	
H1B	1662.72	1881.95	1351.05	833.61	3517.7	158.69	972.97	1186.5
	(3286.9)	(1763.9)	(2518.2)	(376.1)	(6466.7)	(169.9)	(846.81)	(1100)
Mobility	1203.48	19.66	5.83	6.83	39.05	16.17	4092.72	7.92
	(9242.0)	(79.08)	(10.85)	(7.27)	(123.51)	(31.43)	(17,029)	(10.7)
Years of schooling	6.64	9.94	6.98	8.97	6.64	6.04	3.67	4.11
	(2.92)	(1.6)	(2.7)	(1.53)	(1.52)	(0.86)	(1.81)	(2.01)
Tertiary enrolment	30.17	64.07	26.11	47.63	33.14	24.54	4.26	5.81
	(26.58)	(19.2)	(23.28)	(20.83)	(16.96)	(11.99)	(3.88)	(3.53)
N	142	24	14	24	21	14	39	6

Data sources: Author's calculations on data collected from World Bank, WDI, UNESCO, US Department of Homeland Security, Barro and Lee (2010); for details, see Table 5.6

Table 5.8 Data summary statistics—mean values for 142 countries (standard deviation)

Variables	All	Low HDI	Middle HDI	High HDI	Very high HDI
Public spending	15.48	17.06	15.56	13.32	15.22
	(5.53)	(6.06)	(5.57)	(4.26)	(2.09)
Public spending for secondary and tertiary education	0.64	0.50	0.67	0.75	0.71
	(0.17)	(0.19)	(0.14)	(0.08)	(0.09)
Private enrolment	14.43	18.27	12.47	13.54	16.91
	(15.92)	(17.29)	(14.10)	(17.79)	(17.92)
Gender index	96.90	83.58	102.88	104.27	109.32.
	(13.08)	(12.73)	(7.22)	(6.44)	
Pupil/Teacher	28.46	46.99	21.89	15.11	10.50
	(16.07)	(14.45)	(6.56)	(4.48)	
Duration	8.71	7.17	8.95	10.30	11.00
	(1.94)	(1.69)	(1.49)	(1.59)	(0.00)
Technical/ Vocational	29.38	18.97	28.06	44.88	61.11
	(23.07)	(18.63)	(22.66)	(20.82)	(0.51)
Science graduates	9.26	11.70	7.85	9.61	10.64
	(6.22)	(9.63)	(5.05)	(3.31)	(3.54)
Engineering graduates	12.12	8.86	12.44	14.17	7.78
	(6.33)	(6.69)	(6.13)	(5.87)	(0.19)
H1B	1695.42	914.17	2027.60	2159.96	1220.83
	(3311.62)	(922.63)	(4603.57)	(2166.94)	(33.79)
Mobility	1229.92	3573.66	112.24	20.99	3.16
	(9342.40)	(16,192.49)	(383.76)	(78.97)	(4.24)
Years of schooling	6.65	3.32	7.05	9.76	11.94
	(2.94)	(1.47)	(1.62)	(1.48)	(1.15)
Tertiary enrolment	30.23	4.14	33.53	62.83	81.22
	(26.70)	(3.18)	(18.82)	(20.03)	(3.88)
N	137	43	65	27	2

Variables	All	Industrialized countries	Emerging countries[a]	Developing countries	Less developed countries
Public spending	15.52	13.13	15.75	16.90	17.34
	(5.53)	(3.3)	(5.75)	(6.04)	(6.34)
Public spending for secondary and tertiary education	0.64	0.76	0.64	0.61	0.51
	(0.17)	(0.09)	(0.13)	(0.17)	(0.2)
Private enrolment	14.64	10.63	14.37	20.05	15.19
	(16.28)	(16.27)	(15.67)	(18.09)	(14.54)

Table 5.8 (continued)

Variables	All	Industrialized countries	Emerging countries[a]	Developing countries	Less developed countries
Gender index	96.72	104.74	99.91	99.26	81.99
	(13.23)	(6.11)	(9.66)	(10.25)	(13.64)
Pupil/Teacher	28.21	15.25	23.14	29.21	48.04
	(16.03)	(3.87)	(8.41)	(13.91)	(14.41)
Duration	8.69	10.29	8.83	8.30	6.94
	(1.92)	(1.39)	(1.48)	(1.6)	(1.63)
Technical/ Vocational	29.31	38.61	31.97	23.31	20.04
	(22.97)	(22.23)	(24.3)	(21.01)	(19.57)
Science graduates	9.17	8.72	7.97	9.46	11.53
	(6.16)	(3.94)	(4.21)	(7.68)	(9.34)
Engineering graduates	12.01	12.30	13.67	12.04	7.77
	(6.5)	(5.28)	(7.23)	(7.32)	(4.99)
H1B	1662.72	1729.29	1193.82	3179.54	735.51
	(3286.89)	(1671.34)	(1106.16)	(6395.37)	(732.32)
Mobility	1203.48	20.40	4.90	314.81	4987.49
	(9242.04)	(78.99)	(13.33)	(593.37)	(19,314.84)
Years of schooling	6.64	9.93	7.36	5.90	2.65
	(2.92)	(1.6)	(1.78)	(1.74)	(1.13)
Tertiary enrolment	30.17	55.89	36.72	18.18	3.76
	(26.58)	(23.1)	(21.09)	(15.45)	(3.34)
N	142	38	41	30	33

[a]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston's Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations on data collected from World Bank, WDI, UNESCO, US Department of Homeland Security, Barro and Lee (2010); for details, see Table 5.6

Table 5.9 Simple correlations between WCI variables

	Public spending	Public spending for secondary and tertiary education	Private enrolment	Gender index	Pupil/ Teacher	Duration	Technical/ Vocational	Science graduates	Engineering graduates	H1B	Mobility	Years of schooling	Tertiary enrolment
Public spending	1												
Public spending for secondary and tertiary education	−0.088	1											
Private enrolment	−0.069	**−0.168**	1										
Gender index	−0.141	**0.328**	−0.079	1									
Pupil/ Teacher	**0.166**	**−0.504**	0.149	**−0.633**	1								
Duration	**−0.171**	**0.175**	0.007	**0.349**	**−0.477**	1							
Technical/ Vocational	**−0.320**	**0.169**	0.019	**0.235**	**−0.251**	**0.246**	1						
Science graduates	**0.230**	−0.048	0.111	−0.066	0.037	−0.124	−0.151	1					
Engineering graduates	−0.119	0.151	−0.076	0.012	**−0.209**	0.063	0.064	0.000	1				
H1B	−0.043	0.003	0.071	0.108	−0.101	−0.077	−0.156	0.028	0.103	1			
Mobility	−0.049	−0.023	−0.006	**−0.212**	0.095	−0.134	−0.071	0.011	−0.017	0.022	1		
Years of schooling	**−0.196**	**0.391**	−0.132	**0.511**	**−0.600**	**0.527**	**0.339**	−0.116	0.121	0.099	**−0.208**	1	
Tertiary enrolment	**−0.273**	**0.456**	−0.132	**0.611**	**−0.677**	**0.546**	**0.369**	−0.149	**0.183**	−0.003	−0.122	**0.74**	1

Note: Bold characters denote a significant correlation at the 5% level

Data sources: Author's calculations on data collected from World Bank, WDI, UNESCO, US Department of Homeland Security, Barro and Lee (2010); for details, see Table 5.6

References

Abramovitz, M. 1986. Catching Up, Forging Ahead, and Falling Behind. *The Journal of Economic History* 46 (2): 385–406.

Acemoglu, D., F. Zilibotti, and P. Aghion. 2006. Distance to Frontier, Selection and Economic Growth. *Journal of the European Economic Association* 4 (1): 37–74.

Aghion, P., and E. Cohen. 2004. *Education and Growth. Report of the Conseil d'Analyse Economique No. 46*. Paris: Conseil d'Analyse Economique.

Aghion, P., and P.W. Howitt. 2009. *The Economics of Growth*. Cambridge, MA: The MIT Press.

Aghion, P., N. Bloom, R. Blundell, R. Griffith, and P. Howitt. 2005. Competition and Innovation: An Inverted-U Relationship. *The Quarterly Journal of Economics* 120 (2): 701–728.

Amable, B. 2003. *The Diversity of Capitalisms*. Oxford: Oxford University Press.

Asheim, B., and A. Isaksen. 2002. Regional Innovation Systems: The Integration of a Local 'Sticky' and Global 'Ubiquitous' Knowledge. *Journal of Technology Transfer* 27: 77–86.

Banerjee, A., and E. Duflo. 2011. *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. New York: Public Affairs.

Barro, R. 1991. Economic Growth in a Cross-Section of Countries. *The Quarterly Journal of Economics* 106 (2): 407–443. Published by MIT Press.

Barro, R., and J.-W. Lee. 2010. A New Data Set of Educational Attainment in the World, 1950–2010. *NBER Working Paper* No. 15902.

Benhabib, J., and M. Spiegel. 1994. The Role of Human Capital in Economic Development: Evidence from Aggregate Cross-Country Data. *Journal of Monetary Economics* 34 (2): 143–l73.

Breschi, S., and F. Maerba. 1997. Sectoral Innovation: Technological Regimes, Schumpeterian Dynamics and Spatial Boundaries. In *Systems of Innovation*, ed. C. Edquist, 1130–1156. London: Pinter.

Carlsson, B., and G. Eliasson. 1994. The Nature and Importance of Economic Competence. *Industrial Corporate Change* 3 (1): 687–711.

Carlsson, B., S. Jacobsson, S. Holmen, and A. Rickne. 2002. Innovation Systems: Analytical and Methodological Issues. *Research Policy* 31 (2): 233–245.

Cohen, W.M., and D.A. Levinthal. 1989. Innovation and Learning: The Two Faces of R&D. *The Economic Journal* 99 (397): 569–596.

———. 1990. Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly* 35 (1): 128–152.

Cohn, E., and J.T. Addison. 1998. The Economic Returns of Lifelong Learning in OECD Countries. *Education Economics* 6: 253–307.

Cooke, P. 2001. Regional Innovation Systems, Clusters, and the Knowledge Economy. *Industrial and Corporate Change* 10 (4): 945–974.

Denison, E.F., and F. Poullier. 1965. *Why Growth Rate Differ? Postwar Experiences in Nine Western Countries*. Washington, DC: The Brookings Institute.

Edquist, C. 1997. *Systems of Innovation: Technologies, Institutions and Organizations*. London: Pinter.

Esim, S. 1994. *Contribution of Secondary Education To Economic Development in S. Korea, Malaysia and Thailand*. Second Draft, Education and Social Policy Department, The World Bank.

Freeman, C. 2002. Continental, National and Sub-national Innovation Systems. *Research Policy* 31 (2): 191–211.

Furman, J.L., M.E. Porter, and S. Stern. 2002. The Determinants of National Innovative Capacity. *Research Policy* 31: 899–933.

Gerschenkron, A. 1966. *Economic Backwardness in Historical Perspective. A Book of Essays*. Cambridge, MA: The Belknap Press of Harvard University Press.

Glewwe, P. 2002. Schools and Skills in Developing Countries: Education Policies and Socioeconomic Outcomes. *Journal of Economic Literature* 40(2): 436-482. Published by American Economic Association.

Hall, Peter A., and D. Soskice, eds. 2001. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.

Kendrick, X. 1961. *Productivity Trends in the United States*. Princeton, NJ: Princeton University Press.

Kim, L. 1980. Stages of Development of Industrial Technology in a Developing Country: A Model. *Research Policy* 9 (3): 258–277.

———. 1997. *Imitation to Innovation*. Boston, MA: Harvard Business School Press.

Kiso, I. 1993. *Secondary Education and Economic Development in Japan: A Case Study of Key Policy Decisions Affecting the Development of Secondary Education in Japan*. Japan: Ministry of Education.

Lucas, R.E. 1988. On the Mechanisms of Economic Development. *Journal of Monetary Economics* 22 (1): 3–42.

Lucas, R.E. 1990. Why Doesn't Capital Flow from Rich to Poor Countries? *American Economic Review* 80 (1): 92–96.

Lundvall, B.-A. 1992. *National Systems of Innovation. Towards a Theory of Innovation and Interactive Learning*. London: Pinter.

McMahon, W.W. 1998. Education and Growth in East Asia. *Economics of Education Review* 17: 159–172.

Nelson, R.R. 1993. *National Innovation Systems. A Comparative Analysis*. Oxford: Oxford University Press.

Nelson, R.R., and E.S. Phelps. 1966. Investment in Humans, Technological Diffusion, and Economic Growth. *The American Economic Review* 56 (1/2): 69–75.

Okhawa, K., and H. Rosovsky. 1973. *Japanese Economic Growth: Trend Acceleration in the Twentieth Century*. Stanford: Stanford University Press.

Petrakis, P., and D. Stamatakis. 2002. Growth and Educational Levels: A Competitive Analysis. *Economics of Education Review* 21: 513–521.

Pritchett, L. 2001. Where Has All the Education Gone? *World Bank Economic Review* 15: 367–391.

Psacharopoulos, G. 1994. Returns to Investment in Education: A Global Update. *World Development* 22 (9): 1325–1343.

Romer, P. 1990. Endogenous Technological Change. *The Journal of Political Economy* 98 (5): 71–102.

Schultz, T. 1961. Investment in Human Capital. *The American Economic Review* 51: 1–17.

Sen, A. 2000. *Un nouveau modèle économique*. Paris: Ed. Odile Jacob.

Vandenbussche, J., P. Aghion, and C. Meghir. 2006. Growth, Distance to Frontier and Composition of Human Capital. *Journal of Economic Growth* 11: 97–127.

6

Product Market and Competition

Eric Rougier

6.1   Introduction

The effect of competition on economic development is a rather problematic issue. Although it is generally considered that more competition enhances market and firm efficiency,[1] both theoretical and empirical literature reveal that greater competition could have negative effects on firms and productivity, especially for the least developed economies. As underlined by Aghion and Griffith (2005: 1), under certain circumstances higher growth can be maintained through more protectionist and entrenched policies, whereas under other circumstances growth seems

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[1] Product market deregulation, insofar as it triggers competition for incumbent firms, is widely seen as a key determinant of output and productivity growth in both developed (Nicoletti and Scarpetta 2003; Blanchard and Giavazzi 2003; Wölfl et al. 2009) and developing economies (Djankov et al. 2002, 2006; Loayza et al. 2004, 2005).

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to require greater competition and openness. This corresponds to the old Gerschenkron (1962) idea, according to which there may be several engines of growth that do not require the same institutions and policies in order to operate efficiently. Competition certainly has a positive effect when a country's economic growth is mainly backed by technological innovation.[2] More competition may, however, turn out to be negative in the case of less developed countries since it can reduce investment for low productive firms. In other words, a low income economy, distant from the technological frontier, whose growth heavily relies on primitive accumulation, a small set of primary resources, low productivity manufacturing and rigid labour regulation, may not benefit from more competition on goods markets, and could even be harmed by it. Consequently, countries should move from less competitive to more competitive institutions throughout their path of technological development.[3]

As regards our aim in this chapter, that is, comparing the institutional systems underlying product markets, we can infer from the previous point that models of competition regulation may tend to be very different across countries and levels of economic development. But even within OECD economies, strong differentiation remains, notably with respect to competition intensity, the magnitude of regulatory constraints and of state control over the economy (Amable 2003: 115). Since most of them have not experienced a trend of deregulation akin to the one that has hit OECD countries since the mid-1980s, the odds are that the heterogeneity of product market regulation (PMR) is even larger for developing economies. Although a few developing countries, like Chile, have implemented deep market-establishing reforms over the last 30 years, the majority have chosen a much more incremental approach, and kept high levels of state control over goods markets. Even those which underwent structural adjustment programmes during the eighties and nineties followed

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[2] Ever since Schumpeter (1934), it has been widely accepted that competition has two contradictory but complementary effects on growth. On the one hand, increased competition has an adverse effect, by eroding the rents of the innovative firms, whose monopolistic position may be contested by potential entrants. On the other hand, competition and entry also have a positive impact on innovation, since they produce strong incentives for incumbent firms to find new products or to reduce their costs so as to temporarily escape competition.

[3] This point has received empirical support by Acemoglu et al. (2006) on the basis of cross-sectional aggregated data. Amable et al. (2010), who tested the assumption of a non-linear competition effect on productivity using sector-based data, have been less supportive of this point.

very different trends of privatization and goods market deregulation (Berr et al. 2009). As emphasized by Aghion and Griffith (2005), the singularity of each national institutional environment has greatly conditioned the product market regulation trajectories of change over the last three decades, thereby maintaining high diversity across developing countries.

This chapter presents a comparative analysis of developing economies' product market governance systems. We start by examining how these systems are assessed, before going on to identify the main differentiation patterns of these competition regimes, then presenting the specific typology generated by cluster analysis.

6.2   Competition and Product Market Governance in Developing Countries

In this section, we argue that product market governance systems can be analysed as the articulated bodies of formal or informal rules (product market regulation, including trade and investment regulations, business rules) and policies (taxation, infrastructure provision, direct state intervention on goods market) aimed at organizing an optimal level of competition on goods markets.[4] As explained above, this optimal level of competition is highly dependent on the level of development and resource endowment, but also on historically inherited social preferences. The perimeter of the product market governance is, therefore, broader than that of mere competition policies, whose focus is generally restricted to the rules governing competition between firms and market entry. Product market governance is the product of complex interaction between four actors: government, incumbent firms, competitors and consumers. Developing countries exhibit a huge variety of national forms of goods production and exchange (Amsden 1989; Wade 1989; Subramanian and Roy 2003; Acemoglu et al. 2003; Rodrik 2008a, b).

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[4] Except for Amable (2003), CC does not always make a clear and systematic distinction between the different domains pertaining to the *production* domain, broadly defined by Soskice (1999: 101) as "the organization of production through markets and market-related institutions". Accordingly, it articulates such dimensions as industrial and labour relations, competition policies, as well as the financial system (Hall and Soskice 2001).

Country-specific political compromises between the state, banks and industrial firms condition the shape of competition governance.

In some historical cases, these national compromises led to economic successes, such as the East-Asian miracle. In Korea and Taiwan, broad growth coalitions, marshalling the government, its administration and private business, have succeeded both in setting up the conditions needed for sustained growth, and making them legitimate for the majority of their populations (World Bank 1993; Evans 1995; Ranis 1995). By contrast, in Africa, Latin America or the Middle East, ruling coalitions have built statist centralized politico-economic systems, often financing "factional-distributive" policies by natural resource rents, with only limited impact on long-term growth (Rougier 2016). Significant product market rigidities there have generally led to resource misallocation, corruption and economic failures (Rodrik 2003; Robinson 2009; Cammett et al. 2015).

State interventionism in goods markets prevails in most developing economies. The specific form of state interventionism used by a country can exert considerable impact on its economic development. In an influential paper, Hall and Jones (1999) showed that the labour productivity gap between developed and developing economies can be explained by differences in governmental diversion of resources.[5] Several years earlier, Mauro (1995) had also found that corruption reduces investment and economic growth. Given that a stricter regulation of entry tends to be associated with higher levels of corruption, excessive entry regulation traditionally ends up by benefiting the regulators or a limited number of politically connected incumbent firms in developing countries (Faccio 2006; Acemoglu and Johnson 2011). Any attempt to characterize developing economies' product market regulation should, accordingly, account for corruption and all other forms of state or administrative protection.

A related issue is the importance of informality in most developing countries' goods markets. Excessive market regulation or political control over economic resources may drive potential entrepreneurs to carry out their activities in the informal sector. In poor economies' informal sectors, contract enforcement is generally low, with business coordina-

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[5] They averaged, for 1986–1995, five *International Country Risk Guide* scores assessing the government's role in protecting against private diversion: (i) law and order, (ii) bureaucratic quality, (iii) corruption, (iv) risk of expropriation, and (v) government repudiation of contracts.

tion essentially operating through personal ties, network building and informal rules of behaviour (Fafchamps 2004; Berrou and Combarnous 2011). Because of the lack of legal recourse, economic agents spend significant amounts of resources setting up long-term relationships, thereby limiting their capacity to invest in capacity or productivity. As a consequence, a high degree of informality generally leads to small-sized businesses and low sectoral concentration. Informal ties are, by nature, very hard to measure, especially at country level. In addition, the extent of informal activities is not necessarily a good predictor of the extent of production networks in developing economies.

Our analytical framework is described in Fig. 6.1. The top left cell features each country's broad institutional conditions: complementary labour and financial institutions, norms and values, or legal origin. The *competition regime*, that is, the model of product market institutional governance, refers to the role played by government, local businesses, transnational companies and market actors, and their coalitions. Product market governance determines competitiveness and other related competition outcomes such as entry rates, margins, concentration, comparative
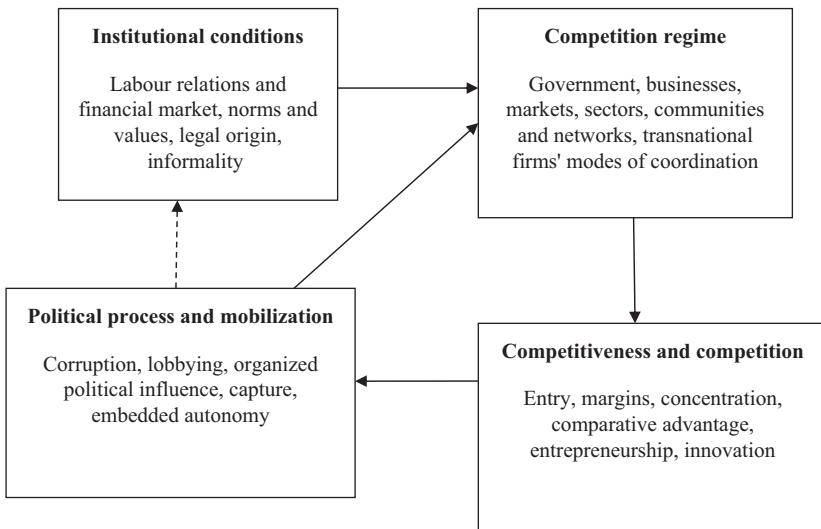
Fig. 6.1 Analytical framework for comparing competition and product market governance

advantage, rents or innovation. The bottom left cell is related to the mobilization patterns and political processes impacted by competitiveness and competition outcomes, but these processes and patterns also determine, in turn, the institutional structure of the competition regime.

In the next section, we present the indicators that we have selected to characterize competition regimes.

6.3   Assessing Competition and Product Market Governance

As explained in the previous section, the measurement of product market institutions represents a difficult challenge, both because data is scarce for developing countries, and because the dimensions and forms of these institutions vary widely. Whereas some countries, like Chile or East European former socialist systems, have converged towards liberalized OECD-style governance mechanisms, others, like China, have set up very original private–public systems of production and distribution that cannot really be assessed by using the existing indicators that were crafted for industrialized countries. Various product market regulation scores have been recently developed by OECD to assess member countries' degree of product market liberalization. These scores cover three dimensions of product market governance: State control of business enterprises, legal and administrative barriers to entrepreneurship, and barriers to international trade and investment (Nicoletti and Scarpetta 2003; Wölfl et al. 2009). Although the database has been recently extended to seven developing countries, its country coverage remains too narrow for our purpose, since the vast majority of developing countries are still excluded. Moreover, developing countries' production regimes generally feature complex systems of legal and informal regulation, and intertwine private and state-owned firm strategies that cannot be expressed as a mere score on a scale of liberalization.

Various dimensions have been selected to describe product market governance systems across our sample of developed and developing countries: competition policies, state incentives and direct market interven-

tion, legal and administrative barriers to entrepreneurship, barriers to international trade and investment and corruption.

As for competition policy, various input measurements of explicit competition policies have been proposed in the literature.[6] Fingleton et al. (1998) use measurements of public funding or of the level and skill of agency staff that are devoted to antitrust enforcement, but the lack of harmonized information about competition policy inputs has driven scholars to compute binary variables indicating the presence or absence of antitrust laws (Palim 1998; Dutz and Vagliasindi 2000; Kee and Hoekman 2007). Furthermore, having a competition law on the statute book does not necessarily mean, however, that that law is actually enforced. Nicholson (2008) remarks that although most Latin American countries passed antitrust laws in the early sixties (and Venezuela as early as 1919), they did not actively enforce those laws until the early nineties. In order to assess the gap between *de jure* and *de facto* competition policies, Voigt (2009) has computed scores for both *formal* (on the book) and *effective* competition policies, and shown that they differ significantly across the sample countries. *Formal competition policy* can be defined as a body of independent rules constraining any business action and capitalistic relations that could divert economic resources from their optimal use, notably by concentrating in or monopolizing a market. Competition-focused indicators tend to consider that any distortion to pure market competition is bad for economic performance, thereby disregarding the positive role of strategic industrial policies. By contrast, *effective competition policy* is defined as a more pragmatic approach by which governments aim at reconciling the contradictory goals of competition on domestic markets and firms' competitiveness. This second indicator evaluates the degree to which competition policy is pragmatic, namely, its capacity to be carried out in accordance with economic constraints and goals. Bearing in mind this difference, these two indicators have been included in our data analysis.

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[6] In recent empirical literature, competition is mainly assessed by such outcome measurements as entry rates on domestic markets (Hoekman et al. 2001; Aghion et al. 2005). Sector-based margins of incumbent firms are often used to measure competition intensity, assuming that more entry decreases incumbents' rents. Such measurements are not, however, relevant at cross-national level. Moreover, outcome measurements cannot describe the full set of policies and the range of *competition system* varieties.

As for the other dimensions of product market regulation in developing countries, which include government fiscal and legal incentives delivered to firms, legal barriers, the administrative burden imposed on entrepreneurship and the level of corruption, three data sources have been mobilized. From the Fraser Institute *Economic Freedom of the World* database, four indicators have been selected: *price controls*, a variable which measures the extent of price controls by the government; *trade taxes*, measuring the extent of trade protection (*mean tariffs* and *government revenues from trade taxes*); *transfers and subsidies to the economy*, computed as a score, initially provided by the World Bank Development Indicators, measuring central government transfers to producers and consumers (as a share of GDP); and *corruption*, a score for perceived corruption. From the CEPII Institutional Profiles database, we have used *IPR protection*, a score of the perceived degree of compliance of firms with intellectual property rights policy; *capital openness*, a score of the degree of openness to capital of domestic firms and industries (including public utilities); *SEZ*, a composite score accounting for the number and dynamism of Special Economic Zones; and *retail barriers*, an indicator of the entry barriers and concentration in the retail sector. Finally, we have used the World Bank Doing Business database's *cost of tax compliance*, measuring the time required per year for a business to prepare, file, and pay taxes on corporate income, value added or sales taxes, and taxes on labour; *contract enforcement* and *licence restrictions*, two additional indicators of the extent of red tape and regulation burdens, measuring respectively the number of procedures required to enforce a contract and the time (in days) required to obtain a license to construct a standard warehouse.[7]

We believe that, taken together, these 13 variables provide complementary quantitative information about the product market governance models (*competition regimes*), since they cover all the dimensions surveyed in the previous sections, as summed up in Fig. 6.1. Government diversion or anti-diversion policies are measured by *price controls* and *licence restrictions*, *cost of tax compliance*, *IPR protection*, *formal competition* and *contract*

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[7] However imperfect, Freedom House types of economic organization and other indicators, such as the share of the output provided by state-owned enterprises (World Bank Development Indicators), or the Government effectiveness and Regulatory quality scores of the World Bank Governance Index, will be used in Table 6.4 as characterization variables of our clusters.

enforcement. The competition/competitiveness trade-off is accounted for by *SEZ, transf_subsidies*, and by *effective competition. Capital openness* and *trade taxes* account for the degree of external liberalization for FDI, and for exporting or importing domestic businesses. Lastly, the mobilization and political processes are accounted for by *corruption* and *retail barriers*, with the former measuring the extent of the possible connections between firms and the administration, and the latter serving as proxy for the bargaining power of big companies in the retail industry.

6.4   Models of Competition and Product Market Governance

6.4.1 Main Dimensions of Competition and Product Market Governance Differentiation

Since all 13 variables are quantitative, Principal Component Analysis (PCA) has been used in our empirical analysis. Initially, PCA was processed on these 13 active variables. Then, additional categorical variables, describing a country's geographical localization, Human Development Index (HDI) level and various socioeconomic outcomes, were used as characterization variables.[8] In order to test the robustness of the PCA results, 25 bootstrap replications of the initial sample were implemented in order to identify confidence intervals for the projected variables coordinates. The bootstrap procedure showed that the active variables' position on the first factorial plan (reported in Fig. 6.2) is stable, thus confirming the robustness of the PCA results.[9] Table 6.1 gives PCA eigenvalues and active and supplementary variables correlations with each factor.[10] The first component, which explains 40.56% of overall variance, is predominantly loaded by a government's direct or indirect intervention on the

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[8] It should be noted that the *ex-post* use of these variables does not affect the PCA.

[9] Active countries' projection can be found in the Appendix, Fig. 6.5.

[10] By construction, the optimal number of components needed to account for data variability is determined by (i) the proportion of total variance explained by each component, (ii) the absolute variance explained by each component (the Eigen value of each component retained should exceed value one) and (iii) the capacity of each component to be interpreted meaningfully.
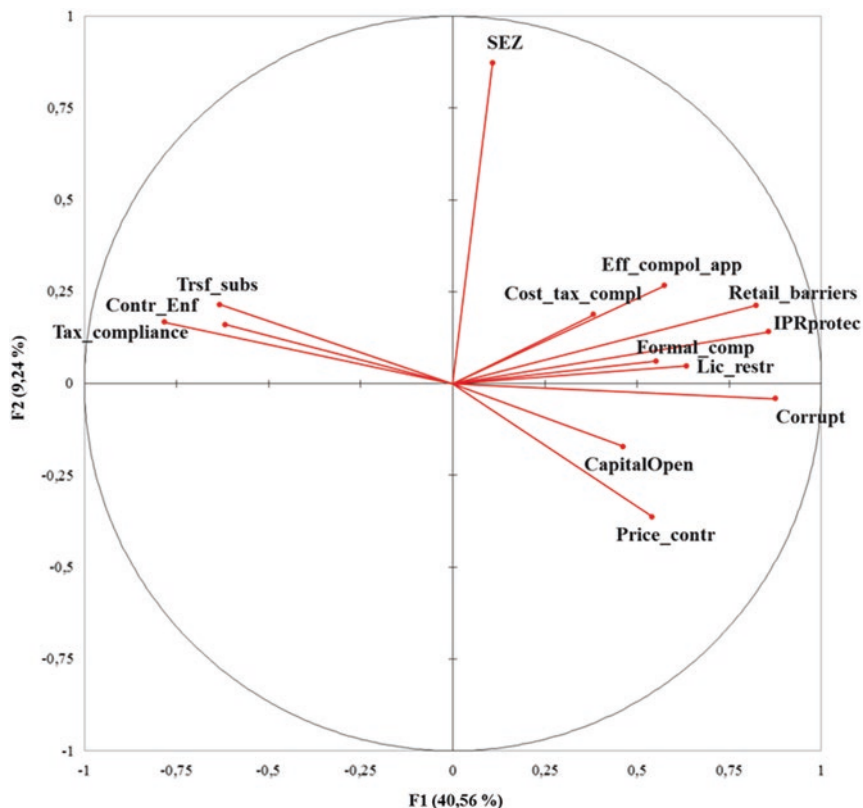
Fig. 6.2 Projection of the variables on the first plan of components. *Data source*: Author's calculations; see Table 6.5 for details

product market (corruption, licence restrictions, price controls, transfers and subsidies, capital openness, trade taxes), and by the variables related to red tape and the business environment (cost of tax compliance, contract enforcement, intellectual property rights protection).

It should be observed that lower corruption is associated with lower red tape and direct or indirect state interventionism, thereby suggesting that corruption tends to be complementary to high product market regulation.[11] Put otherwise, the first dimension of differentiation of com-

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[11] This correlation is not surprising, since recent empirical studies have shown that corruption provides entrepreneurs with more flexibility in over-regulated environments (Méon and Weill 2010).

Table 6.1 PCA Eigenvalues and active variable-axis correlations

	PC1	PC2	PC3	PC4
Eigenvalues	5.273	1.201	1.102	1.034
% of variance	40.56	9.24	8.48	7.95
Cumulative %	40.56	49.80	58.28	66.23
Corruption	0.88	−0.04	0.02	0.12
Price controls	0.54	−0.36	0.44	−0.23
License restrictions	0.63	0.05	0.23	−0.16
Tax compliance	0.38	0.19	0.40	0.61
Retail barriers	0.82	0.21	−0.05	0.05
Capital controls	0.46	−0.17	−0.03	−0.42
Effect. competition policy	0.57	0.27	−0.51	0.01
Formal competition policy	0.55	0.06	0.16	−0.46
SEZ	0.11	0.87	0.19	−0.16
Transfers and subsidies	−0.62	0.16	0.58	−0.12
IPR protection	0.86	0.14	−0.11	−0.00
Contract enforcement	−0.63	0.22	−0.14	−0.38
Trade taxes	−0.78	0.17	−0.05	−0.00

Data sources: Author's calculations on data collected from World Bank Doing Business, CEPII Institutional Profiles, Voigt (2009) and Fraser Institute; for details, see Table 6.5

petition regimes is the degree of internal and external liberalization of the product market, including red tape, trade and capital integration.

The second component explains 9.24% of overall variance; it is mainly loaded by *SEZ* and, to a lesser extent, by *price controls* and *effective competition policy*. The third component (PC3), explains 8.48% of overall variance, and is loaded by the anti-correlation between residual features of direct government intervention (*price controls*, *transfers and subsidies*, *tax compliance*), and *effective competition policy*. All these four dimensions of state interventionism are involved in industrial policies, in particular those carried out at the initial stage of economic development and associated with the "developmental state" model. That being said, the interpretation of PC2 is now more clear-cut: public incentives aimed at attracting FDI in export processing industries (measured here by *SEZ*) do not correlate either to the degree of product market internal liberalization (correlated to the first component) or to traditional developmental state industrial policies (correlated to the third component). This result suggests that emerging economies have elaborated new forms of industrial policies that are essentially based on integration to world value chains.

One consequence of this is that a crucial pattern of opposition between competition regimes relates to the style of governmental intervention on the product market: traditional directive industrial and trade policy vs. "new industrial policy," more focused on FDI attraction and rapid integration to world value chains.[12] Closer examination of the competition policy indicators in Table 6.2 shows that formal competition policy is associated with the logic of liberalization/deregulation of the product markets (PC1).

Table 6.2 Models of competition and product market governance

Cluster 1—*Liberalized deregulated* (32 countries)				
Australia	Austria	Belgium	Canada	Switzerland
Chile	**Czech Republic**	Germany	Denmark	Spain
Estonia	Finland	United Kingdom	France	Greece
Hong Kong	**Hungary**	Ireland	Iceland	Israel
Italy	Japan	Lithuania	Netherlands	New Zealand
Norway	Portugal	Singapore	Slovak Republic	**Slovenia**
Sweden	United States			
Cluster 2—*Export-oriented* (26 countries)				
United Arab Rep.	**Argentina**	**Columbia**	**Dominican Rep.**	Ghana
Guatemala	**Croatia**	**Jordan**	**Korea, Rep.**	Sri Lanka
Latvia	Mauritius	**Malaysia**	Namibia	Nicaragua
Oman	Panama	**Philippines**	**Poland**	**Romania**
Thailand	**Tunisia**	**Turkey**	**Uruguay**	Serbia Montenegro
South Africa				
Cluster 3—*Statist partially liberalized* (28 countries)				
Angola	Armenia	Azerbaijan	Bangladesh	**Bulgaria**
Bolivia	**Brazil**	**Ecuador**	Haiti	**Indonesia**
Jamaica	Kazakhstan	Lao PDR	Libya	Mongolia
Mauritania	Malawi	Niger	Nigeria	Nepal
Paraguay	Sudan	Senegal	Uganda	Ukraine
Uzbekistan	**Venezuela**	Vietnam		

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[12] See Piveteau and Rougier (2011) for an analysis of this shift in industrial policy from traditional developmental state directive policies towards FDI-attraction policies.

Table 6.2 (continued)

Cluster 4—*Statist protected* (26 countries)				
Burundi	Benin	Burkina Faso	Central African Rep.	**China**
Cameroon	Congo	Algeria	**Egypt**	Ethiopia
Gabon	**India**	**Iran**	**Morocco**	Madagascar
Mali	**Pakistan**	**Russian Fed.**	Sierra Leone	Syrian Arab Republic
Chad	Togo	Tanzania	Congo, Dem. Rep.	Zambia
Zimbabwe				
Cluster 5—*Idiosyncratic* (17 countries)				
Albania	Botswana	Cote d'Ivoire	Costa Rica	Honduras
Kenya	Cambodia	Lebanon	Moldova	**Mexico**
Mozambique	**Peru**	Papua New Guinea	Rwanda	**Saudi Arabia**
El Salvador	Yemen			

Note: Bold characters denote countries commonly classified as emerging, in the sense that they have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

6.4.2 The Four Models of Competition and Product Market Governance

In the previous subsection, PCA has provided information about the patterns of correlation between the 13 variables used to describe competition governance systems. Country's distribution on the first factorial plan is reported in Fig. 6.3. A further step has consisted in implementing a mixed classification procedure so as to identify clusters of countries with similar product market regulation. A hierarchical cluster analysis was carried out on the dataset, and the relevant partition[13] was consolidated by the implementation of *k*-means-like iterations aimed at increasing inter-cluster variance while minimizing intra-cluster variance. Since that procedure tends to ascribe each individual, even if it is not well represented in the multidimensional space, into one of the identified clusters, all the countries whose position is too close to the barycentre[14]

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[13] The relevant partition, i.e., the relevant number of clusters, is derived from the dendrogram analysis and the analysis of two indicators which respectively measure (i) the improvement of the inter- to intra-cluster variance ratio when one moves from a given partition to another and (ii) the impact of *k*-means consolidation on that ratio.

[14] More accurately, the standardized Euclidian distance between these countries and the barycentre is less than half the median distance.
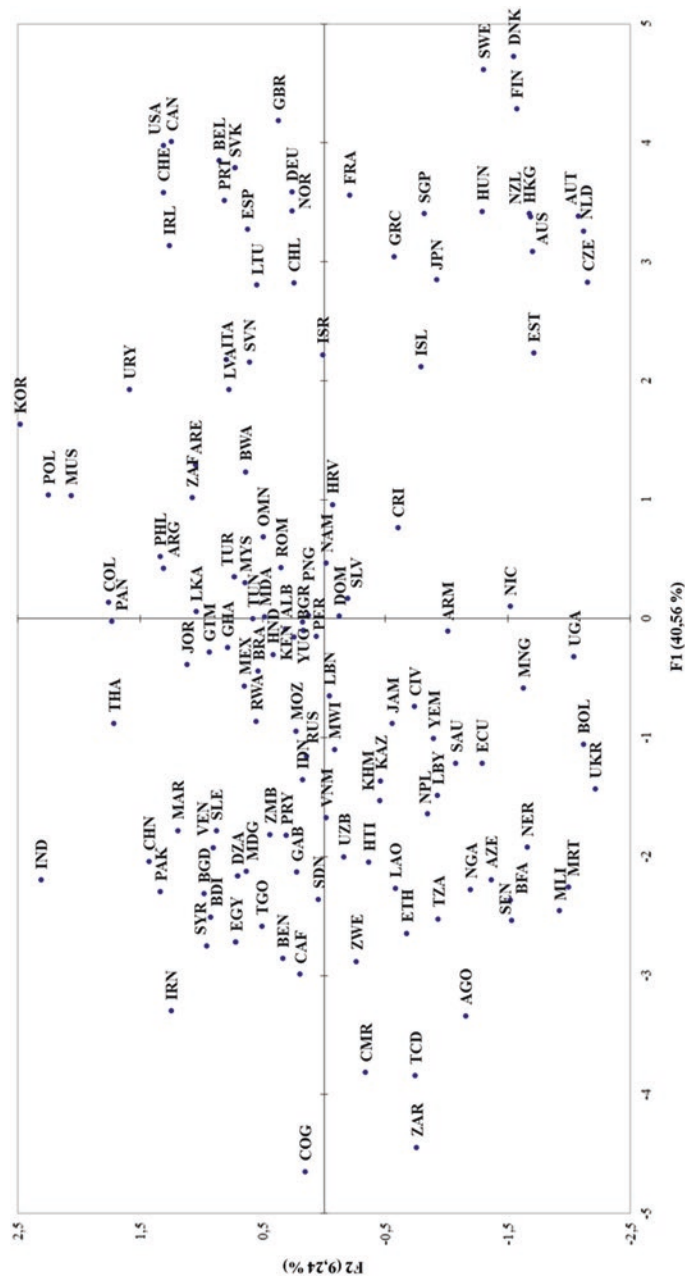
Fig. 6.3 Countries' projection over the first factorial plan. *Data source:* Author's calculations

have been re-imputed into an additional group, labelled *idiosyncratic*. Countries labelled as *idiosyncratic* have thus adopted original institutional arrangements that are different from (i) the "regularities" established for the other countries that are aggregated in clearly identified groups, and (ii) in most cases, one another within the *idiosyncratic* group. The five clusters (four clusters plus the *idiosyncratic* group) that were identified by this method are reported in Table 6.2. Figure 6.4 maps them onto a world atlas. At this point, several significant results are worth being emphasized.

First, there is no one unique model of competition and product market governance among emerging economies. Countries commonly identified as "emerging economies" are distributed across different models of competition governance. A first line of differentiation is related to the degrees of openness and protection of the domestic product market. A majority of emerging economies, especially the smallest ones, are classified in the *export-oriented deregulated* model, which features high degrees of market deregulation, as well as a strong outward orienta-
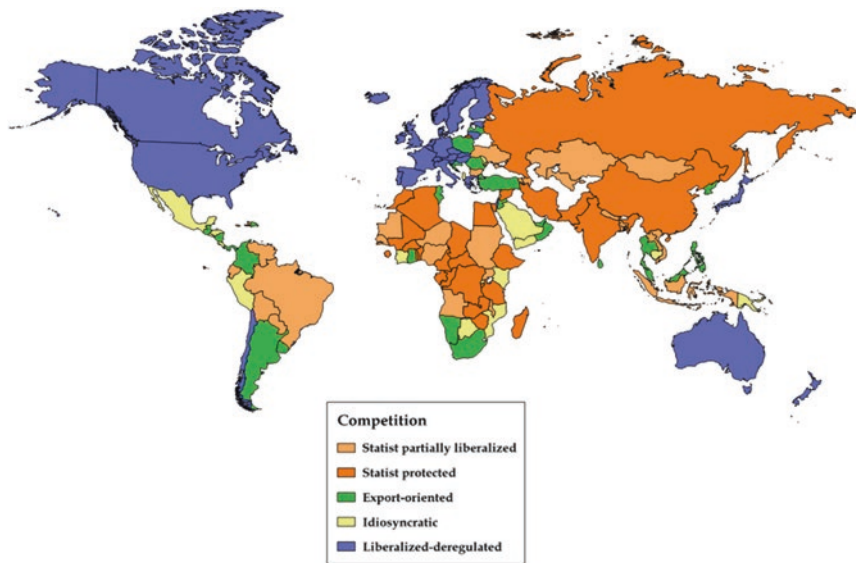

Fig. 6.4 World map of the competition and product market governance models

tion. Countries characterized by that model have significantly higher degrees of product market deregulation, trade openness, FDI attraction to Special Economic Zones, and intellectual property rights protection than is the case for the other clusters of non-developed economies (Table 6.3). Their retail sector is also significantly more concentrated than in other developing and emerging countries, indicating the existence of economic barriers to entrants in this sector and of a certain degree of organization of big companies to protect their markets against potential entrants.

As for the biggest emerging economies, such as Brazil, China, India and Indonesia, they all fall into the two varieties of statist models. As shown in Table 6.3, these two models, namely the *statist partially liberalized* and the *statist protected*, exhibit significant differences as regards the extent of their red tape and market regulation (price controls, licence restrictions) and degree of protectionism (trade taxes, capital controls). Brazil, and smaller emerging countries, like Argentina, Indonesia, Korea, South Africa, Thailand and Turkey, belong to the former group, which is the less regulated and protected of the two, although still featuring relatively higher degrees of state interventionism, especially through state transfers and subsidies and FDI incentives. By contrast, China, Egypt, India, Iran, Russia and Pakistan have been grouped together as *statist protected* competition and product market models, together with a large number of poor developing countries. A common trait of these countries is that state intervention via administrative burden and direct intervention in the trade and production spheres has tended to thwart the emergence of an open competitive market.

Table 6.4, which reports cluster means for several characterization variables, requires several comments. First, and quite surprisingly, the so-called emerging market countries are not necessarily more open to trade and more financially liberalized than the other developing economies. However, they do exhibit significantly higher levels of economic incentives to attract FDI and access to global value chains. Second, OECD countries' competition governance models have all been clustered within the *liberalized deregulated* group. This implies that OECD countries' competition regimes exhibit more similari-

Table 6.3 Active and supplementary variables: compared cluster means (standard errors)

	All (N = 143)	(1) Liberalized deregulated	(2) Export-oriented	(3) Statist partially liberalized	(4) Statist protectionist	(5) Idiosyncratic
Corrupt	0.06 (1.02)	1.54[a] (0.71)	−0.02 (0.44)	−0.68 (0.28)	−0.66 (0.36)	−0.32 (0.50)
Price_contr	4.77 (2.12)	6.43 (1.54)	4.15 (1.78)	4.50 (2.03)	3.04 (1.65)	5.50 (1.73)
Lic_restr	6.60 (2.03)	8.10 (1.17)	6.94 (1.61)	6.41 (1.63)	4.28 (1.95)	7.02 (1.30)
Tax_comp	6.17 (2.71)	7.51 (2.15)	7.53 (1.57)	2.85 (2.70)	5.94 (2.21)	6.65 (1.35)
Retail_barr	1.40 (1.02)	2.53 (.075)	1.74 (0.60)	0.59 (0.53)	0.48 (0.39)	1.26 (0.65)
Capit_contr	2.72 (0.81)	3.22 (0.67)	2.86 (0.76)	2.48 (0.78)	2.22 (0.81)	2.68 (0.56)
Eff_comp	−0.28 (0.92)	0.42 (0.82)	−0.05 (0.82)	−1.10 (0.73)	−0.54 (0.70)	−0.36 (0.61)
Form_comp	−0.10 (0.94)	0.55 (0.84)	0.02 (0.83)	0.25 (0.92)	−0.91 (0.75)	−0.08 (0.53)
SEZ	1.76 (1.32)	1.55 (1.46)	2.76 (1.23)	1.24 (0.97)	1.54 (1.28)	1.72 (0.79)
Tsfr_subsid	7.59 (2.00)	5.57 (1.76)	7.91 (1.57)	7.98 (1.72)	9.06 (0.85)	8.87 (1.09)
IPR_protec	2.14 (1.17)	3.59 (0.48)	2.46 (0.61)	1.14 (0.69)	1.23 (0.68)	1.63 (0.60)
Contr_enf	32.72 (11.00)	22.90 (5.86)	31.77 (7.69)	36.59 (10.94)	41.44 (12.08)	33.71 (6.49)
Tax_trade	8.76 (5.39)	3.16 (1.64)	7.59 (3.51)	9.73 (4.05)	15.68 (3.20)	9.31 (3.56)
GDP/cap. cstt $PPP 2005	11,586.17 (12,435.22)	29,261.30 (8710.41)	10,390.71 (9343.73)	4002.28 (3382.45)	3013.61 (3534.57)	5745.76 (5601.70)
HDI	0.62 (0.19)	0.85 (0.04)	0.67 (0.09)	0.53 (0.14)	0.43 (0.15)	0.54 (0.16)
Gini index	40.63 (9.09)	33.93 (6.90)	43.24 (9.41)	41.98 (10.02)	39.39 (6.51)	46.63 (6.08)
Regul_quality	0.05	1.38	0.17	−0.61	−0.80	−0.26
SOE_ invest	6.00	9.39	5.88	5.00	4.46	6.17
Gov_effect	0.04	1.53	0.16	−0.64	−0.82	−0.61
Social_infrast	0.476	0.816	0.444	0.328	0.286	0.412
Econ_organ	3.15	4.33	3.04	2.95	2.16	3.14

[a]Mean significantly different for the group at 5% (bold) or 1% (underlined) confidence level

Data sources: Author's calculations on data collected from World Bank Doing Business, CEPII Institutional Profiles, Voigt (2009) and Fraser Institute; for details, see Table 6.5

Table 6.4 Informative variables: compared cluster frequencies (in %)[a]

	Liberalized deregulated	Export-oriented	Statist partially liberalized	Statist protected	Indistinct	All (N = 143)
OECD	0.72	0.00	0.00	0.00	0.00	0.18
East Asia and Pacific	0.06	0.15	0.14	0.04	0.12	0.10
Eastern Europe and Central Asia	0.19	0.23	0.21	0.04	0.12	0.16
Latin America and the Caribbean	0.03	0.27	0.25	0.00	0.29	0.15
South Asia	0.00	0.04	0.29	0.08	0.00	0.04
Middle-East and North Africa	0.00	0.15	0.04	0.19	0.18	0.10
Sub-Saharan Africa	0.00	0.15	0.07	0.65	0.29	0.27
Total	1.00	1.00	1.00	1.00	1.00	1.00
Very high HDI	0.69	0.08	0.00	0.00	0.00	0.24
High HDI	0.25	0.40	0.25	0.04	0.31	0.21
Medium HDI	0.03	0.48	0.32	0.31	0.25	0.26
Low HDI	0.03	0.04	0.43	0.65	0.44	0.29
Total	1.00	1.00	1.00	1.00	1.00	1.00
Industrialized countries	0.78	0.08	0.18	0.00	0.12	0.26
Emerging countries	0.16	0.65	0.25	0.31	0.29	0.33
Developing countries	0.06	0.27	0.21	0.19	0.35	0.20
Less developed countries	0.00	0.00	0.36	0.50	0.24	0.21
Total	1.00	1.00	1.00	1.00	1.00	1.00

[a]Mean significantly different for the group at 5% (bold) or 1% (underlined) confidence level

Data sources: Author's calculations

ties than differences, especially when they are opposed to those of the developing countries. Although it systematically exhibits lower degrees of achievements in all the dimensions under analysis, one specific group of emerging economies presents close similarities with the OECD cluster.

Those emerging countries that have adopted the *export-oriented deregulated* model of competition and product market governance have generally liberalized FDI and trade in order to upgrade their industry. By contrast, more mature OECD countries seem to have placed stronger emphasis on direct intervention via subsidies to industries. In this respect, export-oriented deregulated emerging countries look more liberalized than the so-called *liberalized deregulated* mature industrialized countries. Third, large emerging economies such as China, Egypt, India or Russia which have adopted *statist protected* governance systems, or, to a lesser extent, Brazil, which is classified as a statist open model, all seem to provide transnational firms with fewer incentives to invest than the smaller *export-oriented deregulated* emerging economies that are more integrated to the world economy. The fact of having formerly been ruled under a socialist model of governance is probably a common feature of many countries belonging to the two statist clusters. Even though the logic of state control over the economy was partially interrupted by broad privatization programmes during the 1990s, the socialist legacy has survived via large state-owned enterprises and cultural inertia in privatized firms (Lin 2009).

These results show that our four clusters can be located on a linear scale going from low levels of economic development to higher ones, but also from low-quality governance or institutions to higher quality ones. The four clusters also follow a typical path of change, going from a pure statist to a pure capitalist economic organization. Table 6.4 shows that, on average, the *export-oriented deregulated* model has more in common with the *liberalized deregulated* (with strong industrial policy) model than with the two other clusters, which are mainly composed of developing economies. Moreover, the *statist partially liberalized* model shares common features with the *export-oriented deregulated* one, that is, the importance of FDI attraction and of integration to world value chains,

which is nevertheless far more pronounced for the latter, and a tendency to be more open than *statist protected* countries. Yet the *statist liberalized* model is less externally liberalized than the *export-oriented deregulated* model.

As regards internal liberalization and deregulation, it appears that both the *statist partially liberalized* and *statist protected* models are more heavily regulated than the *export-oriented deregulated* one. The capacity to organize transfers and subsidies is significantly lower in *statist protected* countries, which are also characterized by weak states and a high share of informality in the national GDP. Not surprisingly, the countries classified as *liberalized deregulated* are essentially industrialized economies showing the highest levels of HDI and income per capita, and the lowest levels of inequality.

Additional characterization variables in the bottom of Table 6.3 show that there is a scale of regulation quality across the four distinct clusters. The regulatory quality index (World Bank), which measures the quality of the government regulatory action, and the government effectiveness indicator, both increase linearly from the *statist protected* to the *liberalized-deregulated* model. Likewise, the GDP share of state-owned enterprises and government investment linearly increases across the four clusters, suggesting that privatization and state retreat from direct production and investment closely parallel external liberalization and internal deregulation.

6.5   Conclusion

In this chapter, various dimensions of the competition governance system have been described and used to cluster models of competition governance across a large set of developed, developing and emerging countries.

Our data analysis has captured three alternative dimensions along which competition and product market governance models can be differentiated. The first one pertains to the degree of internal and external liberalization of the product market, including red tape and trade and financial integration. The second dimension of differentiation corresponds to FDI attraction policies, especially those concerning export-

processing industries. The third dimension is related to more standard industrial policies, in particular those carried out during the first stages of economic development, and is associated with the developmental state model. One important result is that FDI attraction policies appear to be uncorrelated either to the logic of product market internal liberalization and deregulation, or to industrial policies in a developmental state style. Although diversion/anti-diversion policies still constitute the predominant dimension of differentiation between national systems of competition regulation, the style of state interventionism is also a crucial factor of international heterogeneity. In the more protectionist emerging countries, product market governance tends to operate through the traditional directive industrial and trade policy channels. By contrast, product market governance tends to mobilize more exclusively the channel of policies focused on FDI attraction and integration into world value chains in the more extraverted emerging economies.

On the basis of such a differentiation pattern, four distinct competition regimes have been identified. A fifth set, grouping "idiosyncratic" modes of competition regulation, has been generated by our methodology. OECD developed economies are all classified as *liberalized deregulated* models. The bulk of emerging economies, especially the smallest ones, are found in the *export-oriented deregulated* model, which is characterized by strong outward orientation. Bigger emerging economies fall into the two varieties of statist models, namely the *statist partially liberalized* and the *statist protected*. Brazil and Indonesia belong to the former group, a less regulated and more open model, whereas China, Egypt, India, Iran, Pakistan and Russia fall into the latter group. Other advanced emerging countries, like Argentina, Korea, South Africa, Thailand and Turkey are typified as *statist partially liberalized* model because of a strong degree of state interventionism over markets, aimed, however, at easing integration to the world economy. This represents a crucial difference in respect of the *statist protected* model to which a large number of developing countries belong, where state-diversion plays a central role in the processing of markets, in a context of highly protectionist economies.

Appendix

Table 6.5 Variables used in the cluster analysis

Name of the variable	Description of the data	Source
Government diversion/anti-diversion policies		
Cost of tax compliance	Time required per year for a business to prepare, file, and pay taxes on corporate income, value-added or sales taxes, and taxes on labour (a higher score indicates a shorter time cost)	World Bank Doing Business 2009
IPR protection	Degree of compliance of the IPR policy (0 if no IPR law; from Value 1 if poor compliance, to Value 4 if strong compliance)	CEPII Institutional Profiles
Formal competition	Formal competition policy (A higher score indicates more formal competition rules)	Voigt (2009)
Contract enforcement	Number of procedures to enforce a contract (A higher value means more red tape)	World Bank Doing Business 2009
Price controls	Price controls (a higher score means a more limited use of price controls)	Fraser Institute
Licence restrictions	Time in days and monetary costs required to obtain a license to construct a standard warehouse (a higher score indicates fewer restrictions)	World Bank Doing Business 2009
Trade integration policies		
Capital openness	Degree of openness of private firms and domestic sectors (including public utilities) to foreign capital (0 if no foreign capital; from 1 if low degree of openness to 4 if no protection)	CEPII Institutional Profiles
Trade taxes	Taxes on international trade (taxes on international trade composite index accounting for revenues from trade taxes, mean tariff rate, standard deviation of tariff rates; a higher score indicates more restrictions on trade)	Fraser Institute

Table 6.5 (continued)

Name of the variable	Description of the data	Source
Competition/competitiveness trade-off		
SEZ	Number and degree of dynamism of Special Economic Zones (index with the value 0 if no SEZ; lies between 1—few or inefficient SEZ to 4—efficient or numerous SEZ)	CEPII Institutional Profiles
Transf_subsidies	Index of transfers and subsidies to the economy as a percentage of GDP (a higher score indicates smaller public transfers as a percentage of GDP)	Fraser Institute
Effective competition	Competition policy geared towards economic efficiency (A higher score indicates a more economic driven policy)	Voigt (2009)
Mobilization and political processes		
Corruption	Score for corruption (a higher value means less corruption and negative values signal high corruption)	Fraser Institute
Retail_barriers	Barriers to entry in the retail sector; measurement of the degree of concentration in the retail sector (scores ranging from 0 if no big firms in the retail sector to 4 if big companies)	CEPII Institutional Profiles

Table 6.6 Correlation matrix

	Corrupt	Price_contr	Lic_restr	Tax_comp	Ret_barr	Capit_contr	Eff_comp	Form_comp	SEZ	Sect_subsid	IPR_protec	Contr_enf	Tax_trade
Corrupt	1.00												
Price_contr	0.50	1.0											
Lic_restr	0.56	0.37	1.0										
Tax_comp	0.39	0.12	0.15	1.0									
Ret_barr	0.66	0.30	0.46	0.30	1.0								
Capit_contr	0.32	0.25	0.25	0.11	0.31	1.0							
Eff_comp	0.49	0.13	0.23	0.15	0.48	0.23	1.0						
Form_comp	0.42	0.32	0.30	0.11	0.43	0.29	0.26	1.0					
SEZ	0.04	-0.06	0.15	0.08	0.20	-0.04	0.11	0.11	1.0				
Sect_subsid	-0.54	-0.14	-0.28	-0.03	-0.44	-0.22	-0.44	-0.20	0.08	1.0			
IPR_protec	0.74	0.40	0.48	0.29	0.74	0.36	0.52	0.40	0.17	-0.53	1.0		
Contr_enf	-0.53	-0.34	-0.35	-0.30	-0.49	-0.17	-0.21	-0.23	0.04	0.38	-0.44	1.0	
Tax_trade	-0.59	-0.43	-0.44	-0.28	-0.61	-0.34	-0.32	-0.43	0.01	0.49	-0.59	0.49	1.0

Data sources: Author's calculations; for details, see Table 6.5

Table 6.7 Summary statistics (means and standard deviation)

	All (N = 143)	OECD	East Asia and Pacific	Eastern Europe and Central Asia	Latin America and the Caribbean	Middle-East and North-Africa	Sub-Saharan Africa	South Asia
Corrupt	0.06 (1.02)	1.79 (0.52)	-0.01 (0.98)	-0.19 (0.59)	-0.30 (0.58)	-0.16 (0.48)	-0.57 (0.52)	-0.42 (0.24)
Price_contr	4.77 (2.12)	6.35 (1.46)	3.78 (2.44)	4.22 (2.16)	5.25 (2.34)	4.11 (1.62)	4.11 (1.93)	4.20 (1.10)
Lic_restr	6.60 (2.03)	8.29 (1.23)	7.62 (1.43)	6.46 (1.54)	6.83 (1.30)	6.39 (1.94)	5.01 (2.30)	6.76 (1.40)
Tax_comp	6.17 (2.71)	7.83 (1.69)	6.53 (3.39)	5.81 (3.04)	4.81 (2.49)	6.77 (2.66)	6.02 (2.64)	4.72 (1.86)
Ret_barr	1.40 (1.02)	2.56 (0.79)	1.15 (0.67)	1.76 (1.01)	1.50 (0.77)	0.91 (0.67)	0.73 0.77	0.55 (0.31)
Capit_openness	2.72 (0.81)	3.13 (0.57)	2.28 (0.81)	2.84 (0.80)	2.84 (0.90)	2.49 (0.79)	2.57 (0.82)	2.70 (0.91)
Eff_comp	-0.28 (0.92)	0.42 (0.64)	-0.35 (1.16)	-0.08 (1.19)	-0.28 (0.76)	-0.46 (0.62)	-0.78 (0.69)	-0.44 (0.67)
Form_comp	-0.10 (0.94)	0.43 (0.81)	0.08 (0.98)	0.09 (0.95)	0.15 (0.81)	-0.72 (0.78)	-0.60 (0.89)	0.00 (0.89)
SEZ	1.76 (1.32)	1.68 (1.52)	1.92 (1.50)	1.59 (1.28)	2.18 (1.29)	2.08 (0.95)	1.27 (1.14)	3.00 (1.22)
Tsft_subsid	7.59 (2.00)	5.31 (1.60)	8.37 (0.78)	6.28 (1.91)	8.42 (1.28)	8.45 (1.11)	9.20 (0.81)	8.97 (0.57)

Table 6.7 (continued)

	All (N = 143)	OECD	East Asia and Pacific	Eastern Europe and Central Asia	Latin America and the Caribbean	Middle-East and North-Africa	Sub-Saharan Africa	South Asia
IPR_protec	2.14 (1.17)	3.64 (0.49)	2.00 (1.05)	2.50 (1.15)	1.97 (0.82)	1.76 (0.92)	1.30 (0.77)	1.31 (0.60)
Contr_enf	32.72 (11.00)	22.26 (6.16)	30.23 (8.66)	29.95 (7.02)	36.25 (7.52)	39.58 (9.90)	35.76 (12.18)	41.80 (16.65)
Tax_trade	8.76 (5.39)	3.47 (1.62)	6.53 (4.08)	4.77 (2.96)	8.21 (2.88)	14.09 (2.30)	13.58 (3.49)	14.88 (2.30)

	All (N = 143)	Industrialized countries	Emerging countries[a]	Developing countries	Less developed countries
Corrupt	0.06 (1.02)	1.11 (1.18)	-0.08 (0.57)	-0.21 (0.85)	-0.70 (0.30)
Price_contr	4.77 (2.12)	5.94 (1.71)	4.12 (2.27)	5.05 (2.01)	3.89 (1.60)
Lic_restr	6.60 (2.03)	7.82 (1.59)	6.37 (1.61)	7.06 (1.58)	4.78 (2.33)
Tax_comp	6.17 (2.71)	7.06 (2.64)	5.52 (2.84)	6.29 (2.67)	5.95 (2.40)
Ret_barr	1.40 (1.02)	2.33 (0.99)	1.41 (0.75)	1.26 (0.75)	0.29 (0.31)
Capit_openness	2.72 (0.81)	3.01 (0.65)	2.69 (0.85)	2.69 (0.78)	2.44 (0.90)
Eff_comp	-0.28 (0.92)	0.06 (0.98)	0.01 (0.85)	-0.47 (0.74)	-1.04 (0.58)
Form_comp	-0.10 (0.94)	0.06 (0.98)	-0.09 (1.00)	-0.22 (0.89)	-0.53 (0.74)
SEZ	1.76 (1.32)	1.67 (1.42)	2.20 (1.36)	1.74 (1.21)	1.13 (0.97)
Trft_subsid	7.59 (2.00)	5.76 (1.81)	7.56 (1.64)	9.00 (0.82)	9.50 (0.62)
IPR_protec	2.14 (1.17)	3.22 (1.07)	2.16 (0.88)	1.89 (0.93)	0.95 (0.53)
Contr_enf	32.72 (11.00)	24.65 (7.07)	34.31 (9.58)	33.71 (11.09)	39.56 (11.46)
Tax_trade	8.76 (5.39)	3.94 (2.14)	9.45 (4.80)	9.55 (5.89)	13.64 (3.54)

[a]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

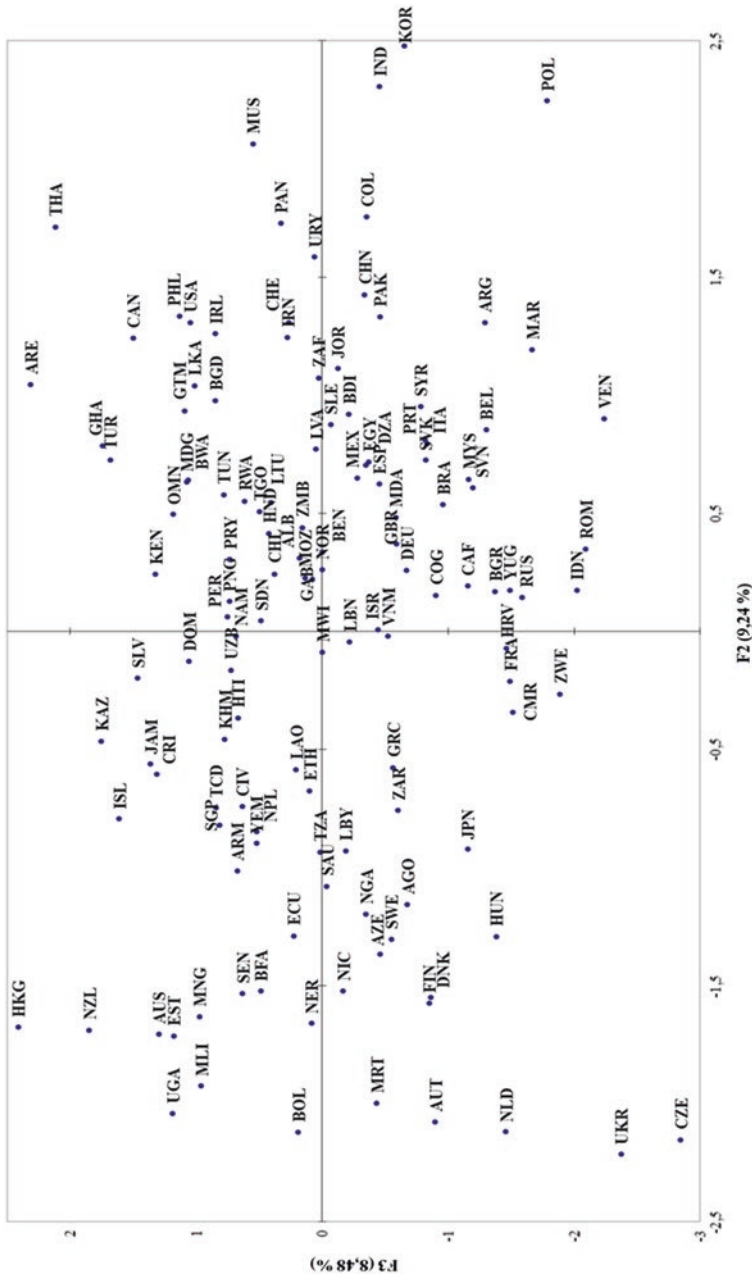*Data sources*: Author's calculations; for details, see Table 6.5

Fig. 6.5 Country projection over the second and third components. *Data source: Author's calculations*

References

Acemoglu, D., P. Aghion, and F. Zilibotti. 2006. Distance to Frontier, Selection, and Economic Growth. *Journal of the European Economic Association* 4: 37–74.

Acemoglu, D., and S. Johnson. 2011. *Why Some Nations Fail*. New York: Crown Business.

Acemoglu, D., S. Johnson, and J.A. Robinson. 2003. An African Success Story: Bostwana. In *In Search of Prosperity: Analytic Narratives on Economic Growth*, ed. D. Rodrik. Princeton, NJ: Princeton University Press.

Aghion, P., N. Bloom, R. Blundell, R. Griffith, and P. Howitt. 2005. Competition and Innovation: An Inverted-U Relationship. *Quarterly Journal of Economics* 120 (2): 701–728.

Aghion, P., and R. Griffith. 2005. *Competition and Growth: Reconciling Theory and Evidence*. Cambridge, MA.: The MIT Press.

Amable, B. 2003. *The Diversity of Modern Capitalism*. Oxford: Oxford University Press.

Amable, B., L. Demmou, and I. Ledezma. 2010. Product Market Regulation, Innovation and Distance to Frontier. *Industrial and Corporate Change* 19 (1): 117–159.

Amsden, A. 1989. *Asia's Next Giant: South Korea and Late Industrialization*. Oxford: Oxford University Press.

Berr, E., F. Combarnous, and E. Rougier. 2009. Too Much Consensus Could be Harmful: Measuring the Implementation of International Financial Institutions Policies and Their Effects on Growth. In *Monetary Policies and Financial Stability*, ed. Louis-Philippe Rochon. Cheltenham: Edward Elgar.

Berrou, J.-P., and F. Combarnous. 2011. Testing Lin's Social Capital Theory in an Informal African Urban Economy. *Journal of Development Studies* 47 (8): 1216–1240.

Blanchard, O., and F. Giavazzi. 2003. Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets. *The Quarterly Journal of Economics* 118 (3): 879–907.

Cammett, M.C., I. Diwan, A. Richards, and J. Waterbury. 2015. *A Political Economy of the Middle East*. Boulder, CO: Westview Press.

Djankov, S., R. La Porta, F. Lopez-De-Silanes, and A. Shleifer. 2002. The Regulation of Entry. *The Quarterly Journal of Economics* 117 (1): 1–37.

Djankov, S., C. McLiesh, and R.M. Ramalho. 2006. Regulation and Growth. *Economics Letters* 92 (3): 395–401.

Dutz, M., and M. Vagliasindi. 2000. Competition Policy Implementation in Transition Economies: An Empirical Assessment. *European Economic Review* 44 (4-6): 762–772.

Evans, Peter. 1995. *Embedded Autonomy: State and Industrial Transformation.* Princeton, NJ: Princeton University Press.

Faccio, M. 2006. Politically Connected Firms. *American Economic Review* 96 (1): 369–386.

Fafchamps, M. 2004. *Market Institutions in Sub-Saharan Africa: Theory and Evidence.* Cambridge, MA: MIT Press.

Fingleton, J., E. Fox, D. Neven, and P. Seabright. 1998. *Competition Policy and the Transformation of Central Europe.* London: Centre for Economic Policy Research.

Gerschenkron, A. 1962. *Economic Backwardness in Historical Perspective.* Cambridge, MA: Harvard University Press.

Hall, R.E., and C.I. Jones. 1999. Why Some Countries Produce So Much More Output per Workers than Others. *Quarterly Journal of Economics* 114 (1): 83–116.

Hall, P.A., and D. Soskice, eds. 2001. *Varieties of Capitalism: Institutional Foundations of Comparative Advantage.* Cambridge: Cambridge University Press.

Hoekman, B., C. Michalopoulos, M. Schiff, and D. Tarr. 2001. Trade Policy Reform and Poverty Alleviation. *Policy Research Working Papers* No. 2733. Washington, DC: The World Bank.

Kee, H.L., and B. Hoekman. 2007. Imports, Entry and Competition Law as Market Disciplines. *European Economic Review* 51 (4): 831–858.

Lin, J.Y. 2009. *Economic Development and Transition.* New York: Cambridge University Press.

Loayza, N., A.M. Oviedo, and L. Serven. 2004. Regulation and Macroeconomic Performance. *World Bank Policy Research Working Paper* No. 3469. Washington, DC: The World Bank.

———. 2005. The Impact of Regulation on Growth and Informality: Cross-Country Evidence. *World Bank Policy Research Working Paper* No. 3623. Washington, DC: The World Bank.

Mauro, P. 1995. Corruption and Growth. *Quarterly Journal of Economics* 110 (3): 681–712.

Méon, P.-G., and L. Weill. 2010. Is Corruption an Efficient Grease? *World Development* 38 (3): 244–259.

Nicholson, M.W. 2008. An Antitrust Law Index for Empirical Analysis of International Competition Policies. *Journal of Competition Law and Economics* 4 (4): 1009–1029.

Nicoletti, Giuseppe, and Stephano Scarpetta. 2003. Regulation, Productivity and Growth: OECD Evidence. *Economic Policy* 36: 9–72.

Palim, M.R.A. 1998. The Worldwide Growth of Competition Law: An Empirical Analysis. *Antitrust Bulletin* 43 (1): 105–145.

Piveteau, A., and E. Rougier. 2011. Le retour en trompe l'œil de la politique industrielle : L'expert, l'Etat et l'économie politique locale. *Revue Tiers Monde* 2011 (208): 177–192.

Ranis, G. 1995. Another Look at the East Asian Miracle. *The World Bank Economic Review* 9 (3): 509–534.

Robinson, J.A. 2009. *Industrial Policy and Development: A Political Economy Perspective*. Mimeo.

Rodrik, D. 2003. *In Search of Prosperity: Analytical Narratives on Economic Growth*. Princeton, NJ: Princeton University Press.

———. 2008a. Normalizing Industrial Policy. *Commission on Growth and Development Working Paper* No. 3, Washington, DC.

———. 2008b. Industrial Policy: Don't Ask Why, Ask How. *Middle East Development Journal* 1 (1): 1–29.

Rougier, E. 2016. Fire in Cairo: Authoritarian-Redistributive Social Contracts, Structural Change, and the Arab Spring. *World Development* 78: 148–171.

Schumpeter, J.A. 1934. *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.

Soskice, D. 1999. Divergent Production Regimes: Coordinated and Uncoordinated Market Economies in the 1980s and 1990s. In *Continuity and Change in Contemporary Capitalism*, ed. H. Kitschelt, P. Lange, G. Marks, and J.D. Stephens. Cambridge: Cambridge University Press.

Subramanian, A., and D. Roy. 2003. Who Can Explain the Mauritian Miracle? Meade, Romer, Sachs, or Rodrik? In *In Search of Prosperity: Analytic Narratives on Economic Growth*, ed. D. Rodrik. Princeton, NJ: Princeton University Press.

Voigt, S. 2009. The Effects of Competition Policy on Development—Cross-Country Evidence Using Four New Indicators. *Journal of Development Studies* 45 (8): 1225–1248.

Wade, R. 1989. *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*. Princeton, NJ: Princeton University Press.

Wölfl, A., I. Wanner, T. Kozluk, and G. Nicoletti. 2009. Ten Years of Product Market Reforms in OECD Countries—Insights from a Revised PMR Indicator. *OECD Economics Department Working Paper* No. 695. Paris: OECD.

World Bank. 1993. *The East Asian Miracle*. Washington, DC: The World Bank.

7

Social Protection

Matthieu Clément

7.1 Introduction

Social protection systems have many objectives, including improving well-being, reducing inequality and mitigating social and political conflicts. However, despite those common objectives, social protection models in industrialized countries are relatively diverse. To characterize the diversity of social protection models, Esping-Andersen (1990) proposed a typology based on three criteria: (i) the capacity for the decommodification of social rights, capturing the degree to which people can protect their livelihoods without reliance on the market, (ii) the impact of redistribution on social stratification (status or class inequality) and its contribution to the reproduction of the existing institutional context, and (iii) the contribution of the state, market and family to the financing of social protection. Based on an analysis of social protection systems in 18 industrialized countries, Esping-Andersen identified three welfare

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state regimes: (i) the *liberal* model (Australia, Canada, Ireland, New Zealand, the United Kingdom and the United States), characterized by minimal public protection through means-tested assistance and extended private insurance schemes, (ii) the Social Democratic model (Austria, Belgium, Denmark, the Netherlands, Norway and Sweden), characterized by a high degree of decommodification and universal benefits, and (iii) the Conservative model (Finland, France, Germany, Italy, Japan, and Switzerland), characterized by a moderate degree of decommodification, and by benefits related to occupational status. That typology is difficult to apply to developing countries, since social protection expenditure is very limited and many social, economic and cultural factors impede the introduction of extended public protection.

Throughout the 1980s and 1990s, the failure of structural adjustment programmes to promote economic growth and poverty reduction resulted in increased interest in social protection. The East Asian crisis, globalization and rapid economic changes have also increased the demand for social protection (Rodrik 1997; Gough 2001; Holzmann et al. 2003).[1] Under the influence of international organizations such as the ILO and the World Bank, a consensus has emerged on the need to define protection mechanisms that help people to manage social risks (Barrientos and Hulme 2008). Several social programmes have recently been introduced in developing countries. Those programmes are often unique and innovative since they are designed to take into account the specific sociocultural characteristics of developing countries. For example, *Oportunidades* in Mexico, and *Bolsa Familia* in Brazil, are designed to target poverty by providing cash benefits to poor families in exchange for regular school attendance or vaccinations. In India, the *National rural employment guarantee scheme* aims to promote livelihood security by giving at least 100 days of guaranteed wage employment to every household in rural areas whose adult members volunteer to carry out unskilled

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[1] The effect of globalization is ambiguous. Two conflicting hypotheses have been proposed in the literature (Garrett 2001). The efficiency hypothesis posits that as a result of globalization, governments are subject to the pressure of efficiency and competitiveness, which may undermine interventionism and the welfare state (Evans 1997; Mishra 1999). The compensation hypothesis, however, argues that, by increasing inequality and social insecurity, globalization leads governments to expand the public economy in order to compensate the losers of globalization (Rodrick 1997; Quinn 1997).

manual work. In the Philippines, the *PhilHealth* insurance programme, created in 1995, has been extended to cover informal sector workers via organised groups such as cooperatives.

The sustained expansion of public social protection schemes in developing countries raises several questions. To what extent do recent trends in social protection in developing countries converge? What role, if any, have private social protection schemes played in that convergence? Is there a specific model of social protection for emerging economies? In order to answer those questions, it becomes essential to typify social protection systems in developing economies. Following the seminal work of Esping-Andersen, the present study aims to identify social protection patterns in developing countries by using multidimensional statistical methods such as principal component analysis (PCA) and cluster analysis. The chapter is organized as follows. The first section provides a survey of the extensions of Esping-Andersen's analysis and discusses its applicability to the context of developing countries, the second section presents the data and the statistical methodology, and finally, the third section presents the classification, and discusses the results.

7.2   The Diversity of Social Protection Models: A Review

Very little attention has been paid to the diversity of welfare regimes in less developed countries, perhaps because of what are often considered as the uniformizing effects induced by the globalization process. As noted by Rudra: "… since developing countries face similar economic challenges (e.g., demand for capital, large pools of surplus labour), they are expected to converge on neoliberal welfare policies for the purposes of attracting capital and promoting exports" (Rudra 2008: 78). Several empirical investigations have found a negative correlation between the degree of globalization and government spending in developing countries (Kaufman and Segura-Ubiergo 2001; Rudra 2002; Wibbels 2006). For instance, Rudra notes that "… from 1972 to 1995, globalization increased in both developed and developing countries, yet trends in government spending for social welfare diverged during this period: spending rose in

rich countries and slightly declined in less-developed countries" (Rudra 2002: 416). However, by focusing only on social spending, those studies overlook the underlying institutional features of social policies, despite the fact that the institutional framework of social policy is absolutely crucial to any comparative analysis of welfare states across countries.

In their study of seven developing countries (Cambodia, Colombia, Mali, Mexico, Philippines, South Africa and Tunisia), Destremau and Lautier (2006) identify three types of social protection: (i) the Bismarckian type (Colombia, Mexico and Tunisia), which involves extended coverage; (ii) the embryonic type (Mali and Philippines) includes countries in which social protection has remained low because its extension has been blocked; and (iii) the Beveridgean type (Cambodia and South Africa), which mainly refers to systems with degraded public services and a number of very disparate private insurance schemes. In the same perspective, Niño-Zarazúa et al. (2012), who examine the recent extension of social protection in sub-Saharan Africa, identify two models. The first one concerns middle income countries (MIC model), mainly in Southern Africa, and relies on age-based income transfers (social pensions, child support grants, etc.); the second model characterizes low income countries (LIC model) in Eastern, Central and West Africa. Although more heterogeneous than the first group, the second model describes social assistance programmes implemented in the last five years and designed to fight against poverty. Focusing on child benefits, Esser et al. (2009) propose a more targeted typology, which identifies regularities in sub-Saharan African and Latin American countries. In the African context, child benefits consist of Bismarckian programmes (linked to employment) inherited from the colonial period whereas, in Latin American countries, child benefits tend to be more means-tested and determined by school attendance targets.

Those studies tend to be essentially qualitative in nature. Moreover, as their predominant focus concerns the institutional characteristics of public social protection programmes, they overlook the plurality of social protection actors in developing countries (households, communities, markets and NGOs). It is important, however, to adopt a broader definition of social protection, one that can account for social, economic and cultural specificities. Esping-Andersen's framework provides a useful starting

point, particularly in view of the many developments it has given rise to.[2] Several studies have been able to justify the existence of other welfare regimes that could best describe Southern European countries (Leibfried 1992; Ferreira 1996; Bonoli 1997), Oceanian countries (Castles and Mitchell 1991) or transition countries (Fenger and Menno 2007). Other studies have focused on the specificities of East Asian social protection systems. Authors such as Ku (1997), Kwon (1999) and Esping-Andersen (1997) have suggested that there are similarities between the three welfare systems identified by Esping-Andersen (1990) and the institutional characteristics of social protection schemes in Hong Kong, Japan, South Korea and Taiwan.

For instance, Ku (1997) shows that the Taiwanese system of social protection shares common characteristics with the Conservative regime. Similarly, Esping-Andersen (1997) argues that the Japanese welfare model stands at the crossroads of the *liberal* and Conservative regimes. Holliday (2000) and Lee and Ku (2007) approach the question from a different angle, seeking to determine whether the institutional characteristics and social protection trajectories of East Asian countries provide evidence of a fourth regime. Holliday (2000) argues that East Asian countries can be grouped into a productivist welfare regime. The two central features of that regime are "… a growth-oriented state and subordination of all aspects of state policy, including social policy, to economic/industrial objectives" (Holliday 2000, 709). Following Holliday, Gough (2001) refers to a Developmental model, suggesting that East Asian states always define economic development as their primary goal, with social protection standing as one of the key instruments for achieving that goal.[3]

Although criticisms have been levelled against Esping-Andersen's analysis,[4] it is, nonetheless, fundamentally institution-based, and provides a useful model for analysing social protection regularities across developing countries. However, taking into account the social, cultural and economic characteristics of developing countries requires some adjustment

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[2] See the survey by Bambra (2007).

[3] The concept of the developmental model was initially proposed by Johnson (1982) to describe the Japanese model.

[4] See Kasza (2002).
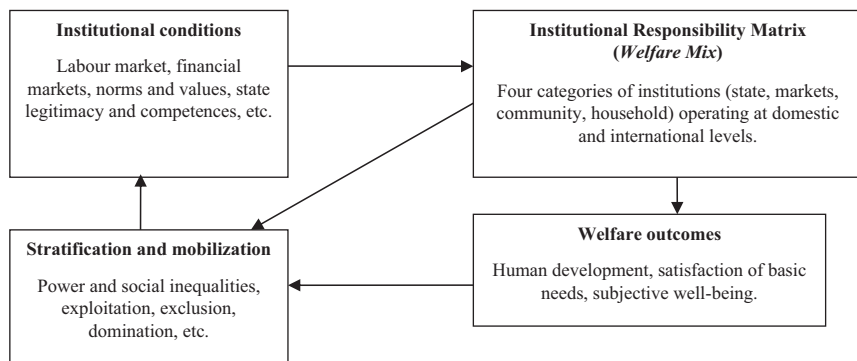
Fig. 7.1 Theoretical framework for comparing social protection models. *Source*: Wood and Gough (2006)

to the initial framework. Rudra (2007, 2008) explores the possibility of distinct welfare regimes in developing countries by referring to two ideal types of welfare states: (i) Protective welfare states, in which government efforts focus on decommodification; and (ii) Productive welfare states that prioritize commodification. An empirical cluster analysis confirms the validity of those two categories, but also identifies a third group that includes what Rudra calls "weak dual regimes", combining elements of the two other regimes.[5] The study by Wood and Gough (2006) is also an extension of Esping-Andersen's analysis. The starting point of their conceptual framework (Fig. 7.1) is based explicitly on the institutional characteristics of countries; namely, market characteristics, state legitimacy, social integration, norms and values and position in the global system. Based on those institutional characteristics, Wood and Gough (2006) define an institutional responsibility matrix (*welfare mix*), following Gough (2001). The matrix describes "… the institutional landscape within which people have to pursue their livelihoods and well-being objectives, referring to the role of government, community, private sector market activity and the household in mitigating insecurity" (Wood and Gough 2006: 1701). The authors distinguish between four categories of

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[5] The productive regime is found in countries such as Chile, Costa Rica, Korea, Malaysia, Singapore and Thailand. The protective regime is associated with Bolivia, Egypt, India, Morocco and Tunisia. The dual regimes concern four Latin American countries (Argentina, Brazil, Mexico, and Uruguay).

institutions (state, market, community and household) at domestic and international levels. That institutional structure produces *welfare outcomes* broadly defined in terms of human development, satisfaction of basic needs and subjective well-being. The last feature of their framework is the stratification system, and the patterns of political mobilization. The stratification system refers to power and social inequalities, and characterizes the degree of mobilization of different social groups. Although the degrees of stratification and mobilization tend to reproduce institutional conditions, they can also destabilize them. The stratification system is also influenced by the welfare mix and welfare outcomes. Thus, social stratification and political mobilization are both cause and consequence of the other factors.

On the basis of that institutional framework, Wood and Gough (2006) perform a simple cluster analysis on several dimensions of the welfare mix and welfare outcomes, using a sample of 56 countries. To describe the welfare mix, two variables are considered: (i) public spending on health and education as a share of GDP, and (ii) the sum of international inflows of aid and remittances as a share of GNP. The Human Development Index (HDI) was used as a proxy of welfare outcomes. Three meta-regimes are identified. First, *welfare state* regimes include the three traditional welfare models identified by Esping-Andersen (Social democratic, Conservative and *liberal*), and an *emerging productivist welfare state* regime for countries such as Korea and Taiwan. Second, *informal security* regimes (Latin America, South Asia and East Asia) describe systems in which (i) people rely on community and family relations to ensure their social security and (ii) formal public social protection has recently emerged. In that meta-regime, Wood and Gough (2006) identified a *liberal-informal* regime (Latin America) and a productivist regime (East Asia). *Insecurity* regimes (sub-Saharan Africa, Afghanistan, and Gaza) are characterized by institutional arrangements that generate high social insecurity and prevent the emergence of effective informal protection mechanisms.

The value of Wood and Gough's analysis is that it takes into account the diversity of social protection actors. In particular, their study highlights the role of the community and households, whereas Esping-Andersen's analysis focused mainly on the state and the market.

The theoretical framework developed by Wood and Gough is clearly adapted to the context of developing countries. However, their empirical analysis is restrictive in three respects. First, their sample excludes industrialized countries. Industrialized countries need to be included, in order to determine whether the social protection systems in developing countries converge with the three canonical welfare state regimes defined by Esping-Andersen. Second, that analysis does not take into account the respective contributions of private and public protection: in other words, it overlooks the degree of decommodification of social rights that is so crucial to Esping-Andersen's analysis. Third, it is more useful to develop a typology of social systems by working out welfare mix variables rather than outcome variables, for the simple reason that the former variables describe the institutional structure of social protection. Outcome variables should be used to characterize *ex-post* the identified groups. This chapter addresses some of the limitations of previous studies, focusing especially on those three weaknesses.

7.3   Measuring Social Protection

Six quantitative variables are used to carry out the statistical analysis.[6] The first, public social protection and health expenditure as a percentage of GDP (SOC_EXP), and the second, Social contributions as a percentage of GDP (CONTRIB), both provide information about the level of public social protection. The third is the Ratio between public and private health expenditure (RATIO_EXP), which is used as a proxy for the decommodification of social protection. The fourth variable is the Mean age of public social security programmes (MEAN_AGE), which is calculated by using the ILO Social Security Database. For each country, the date of creation of the first scheme for eight risks (old age, sickness, maternity, invalidity, survivors' benefits, family allowance, work injury, unemployment) is used to identify the age of the first programme, and then a simple average measuring the mean age of social security schemes is calculated. The fifth variable is the total number of

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[6] The sources are presented in Table 7.5 in the Appendix.

programmes (NB_PROG) for all those branches. Finally, as in Wood and Gough (2006), the share of remittances in GDP (REMIT) is used to measure the degree of informal social protection. In order to describe the groups of countries identified in the cluster analysis, we use three additional variables, which are not used to perform either principal component analysis or k-means cluster analysis. The first two characterization variables are the Gini index (GINI) and the human development index (HDI), which measure welfare outcomes. The third characterization variable is GDP per capita (GDPH).

Although 2005 has been used as the reference year, the closest available value was retained when data were not available for that year, a strategy justified by the fact that we mainly use relatively time-invariant structural variables. Nonetheless, some values were still missing. Since the main purpose of the present study was to construct a typology of social protection models based on the largest possible sample of countries, including industrialized, transition, emerging and less developed countries, the treatment of missing data is an important issue. For the SOC_EXP variable, we used data on public health expenditure as a percentage of GDP (from World Bank World Development Indicators). More precisely, when data were missing for the SOC_EXP variable, we assigned the values of public health expenditure (as a percentage of GDP) multiplied by the mean ratio of SOC_EXP to public health expenditure, in order to preserve the same scale and to allow for comparability.

The initial sample of 154 countries was reduced by eliminating the countries for which less than 50% of the variables were known. We then controlled for the representativeness of the remaining sample.[7] Our final working sample is made up of 143 countries.[8] The possible impact of the remaining missing data on statistical results was neutralized by using the corresponding mean values. The data summary statistics and simple correlations between the considered variables are shown in Tables 7.6 and 7.7 in the Appendix.

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[7] It should be noted that complete information is available for 54.5% of the countries, with only 23.8% of them having a single missing variable.

[8] The excluded countries are Angola, Eritrea, Iraq, Kuwait, Liberia, Myanmar, North Korea, Puerto Rico, Somalia, the Virgin Islands and Zambia.

7.4   Models of Social Protection

7.4.1   Principal Component Analysis

A PCA of the six selected active variables was performed, with three categorical variables, describing the geographical location, the HDI level and the socioeconomic situation of each country, being included as supplementary variables in the analysis.[9] To support the PCA results, 25 bootstrap replications of the initial sample were used to provide confidence intervals for the coordinates of projected active variables. That bootstrap procedure shows that the position of the active variables on the first factorial plan is stable, thus confirming the robustness of the PCA results. Table 7.1 shows the PCA eigenvalues, as well as correlations between active variables and each factor. Figure 7.2 shows the projections of active variables on the first factorial plan, and Fig. 7.3 shows the projections of active individuals on the same plan.

The number of components to be retained depends on (i) the proportion of total variance explained by each component, (ii) the absolute variance explained by each component (the eigenvalue of each component retained should exceed 1), and (iii) the ability of each component to be interpreted meaningfully. Based on the PCA results, two principal components were extracted, accounting for approximately 68% of the

Table 7.1 PCA eigenvalues and active variable-axis correlations

	PC1	PC2	PC3	PC4
Eigenvalues	3.09	0.97	0.79	0.60
% of variance	51.5	16.2	13.2	10.0
Cumulative %	51.5	67.7	80.9	90.9
Remittances (% of GDP)	−0.35	0.84	0.37	0.17
Mean age of programmes (years)	0.85	−0.01	0.21	−0.17
Number of programmes	0.62	−0.30	0.68	0.09
Social contributions (% of GDP)	0.74	0.35	−0.23	−0.42
Social protection expenditure (% of GDP)	0.89	0.23	−0.08	0.04
Ratio of public to private health expenditure	0.72	0.03	−0.30	0.60

Data sources: Author's calculations on data collected from IMF, World Bank, WDI, ILO Social Security Database and UNDP; for details, see Table 7.5

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[9] It should be noted that those variables do not affect the construction of principal components.
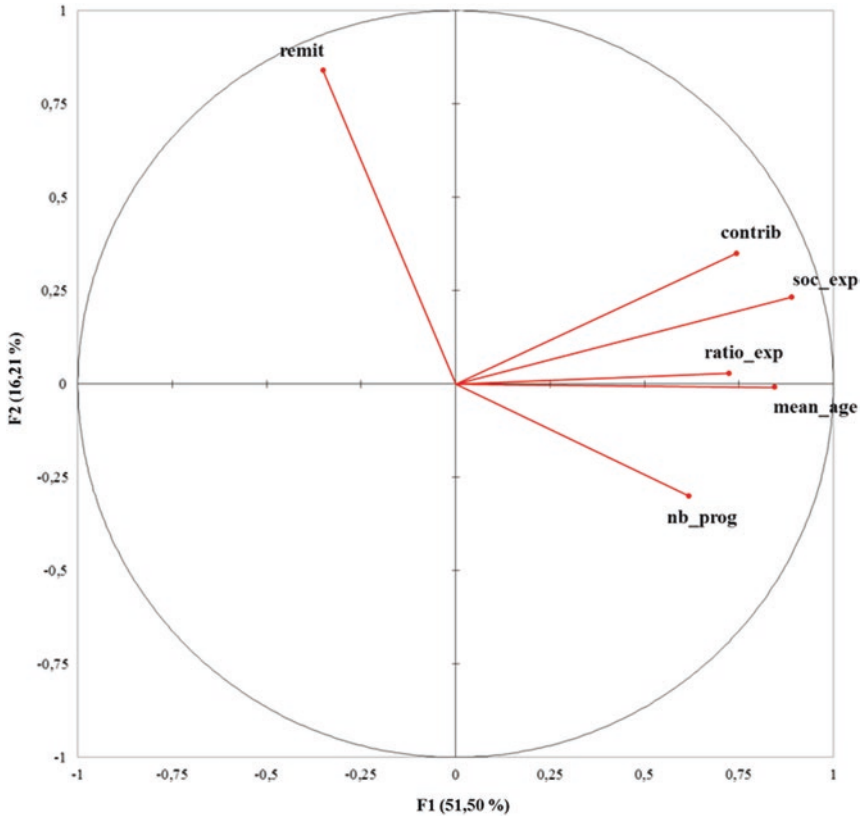
Fig. 7.2 Projection of active variables on the first factorial plan. Data *source*: Author's calculations. See Table 7.5 for details

total variance. The first component explains 51.5% of total variance. The contributions of variables show that F1 captures mostly positive correlations between RATIO_EXP, SOC_EXP, MEAN_AGE, NB_PROG and CONTRIB, which suggests that countries with a high level of public social protection are those that have the oldest and most fragmented public schemes. France, for example, has 15 public schemes (for 8 covered risks) with a mean age of 91 years, which represent almost 30% of GDP in 2005 (including health expenditure). At the other end of the spectrum, in Pakistan, social protection and health expenditure as a percentage of GDP is just 0.2%, the mean age is 42 and there are 6 programmes (for 6

covered risks). Therefore, the coordinates of countries on the first component can be interpreted in terms of the decommodification of social protection. Although the second component has an eigenvalue just below 1, it can be extracted, since it explains more than 16% of the total variance and can be interpreted easily. Most of the variance, explained by component F2, comes from the variable that measures the share of workers' remittances in GDP (REMIT), which indicates that F2 captures the degree of informal protection, even if remittances only provide partial information about the extent of informal coping mechanisms.

As shown in Fig. 7.3, many industrialized and transition countries, and several Latin American countries are located on the right-hand side of the first factorial plan. However, the situation of all those countries concerning F1 is not homogeneous. The extreme right hand-side includes Western European countries, while English-speaking, Latin American and Central and Eastern European countries (CEEC) are closer to the origin. The left-hand side only contains developing countries, with a distinct group at the top (low degree of informal protection), and a distinct group at the bottom (high degree of informal protection).

Although PCA can help in suggesting a classification of countries according to the degree of decommodification of social protection, it does not of itself provide any clear indication of the specific composition and characteristics of the different categories. That is why cluster analysis methods have been used to construct the appropriate typology.

7.4.2   Four Models of Social Protection

Using the data generated by PCA, a mixed classification method has been used to establish homogeneous and meaningful clusters of countries concerning social protection issues. Our mixed classification procedure is based on hierarchical cluster analysis, with the resulting relevant partitions[10] being consolidated via k-means-like iterations aimed at maximizing inter-cluster variance while minimizing intra-cluster variance. As that

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[10] The so-called relevant partition, i.e. the relevant number of clusters, is derived from the analysis of the dendrogram and the analysis of two indicators respectively measuring (i) the improvement of the inter- to intra-cluster variance ratio from one given partition to another and (ii) the impact of *k*-means consolidation on that ratio.
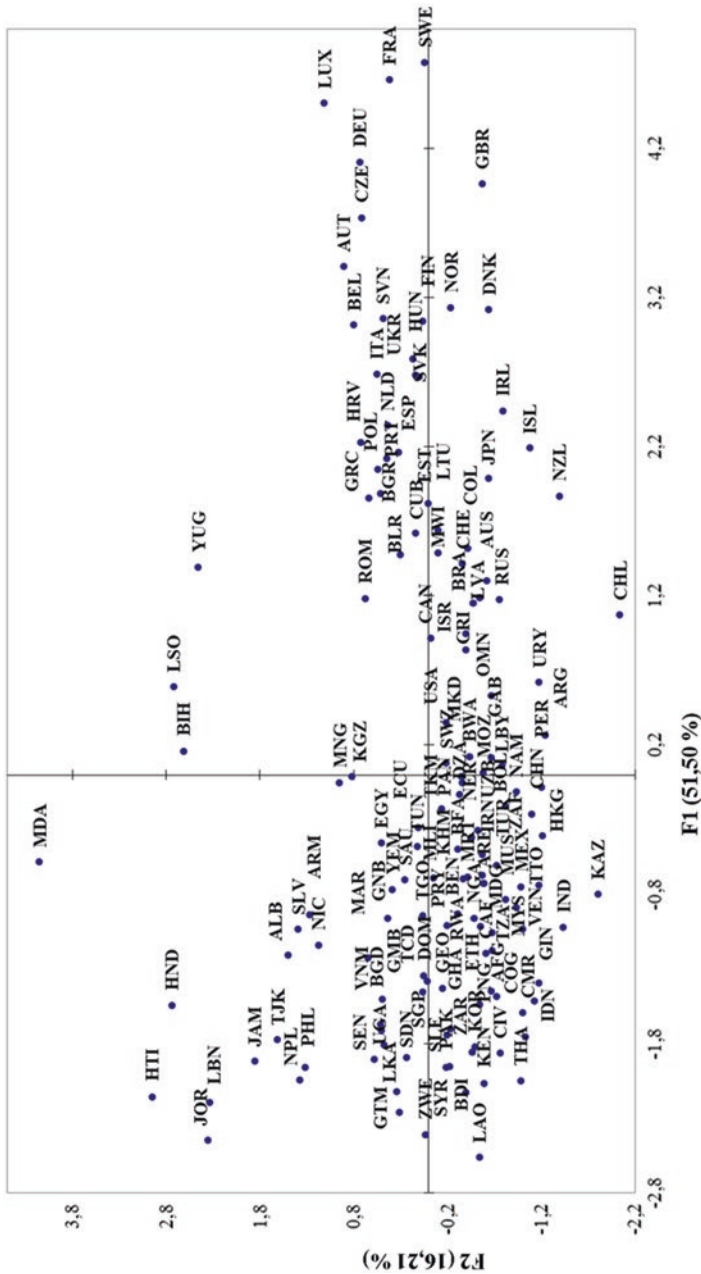
Fig. 7.3 Projection of active individuals on the first factorial plan. *Data source*: Author's calculations

procedure would tend to force each country into one cluster, we have chosen to set up a supplementary, *idiosyncratic* cluster, to bring together those countries whose position in the initial multidimensional scatter plot was extremely close to the barycentre.[11] The reality of social protection in those countries is somewhat unclear, differing from the social protection system of the clearly classified countries, but also differing from the social protection system of the other countries included in the "indistinct" cluster. Those countries have original institutional arrangements that are both (i) different from the "regularities" established for other countries, and (ii) generally different from one another. In other words, the *idiosyncratic* cluster includes countries where original institutional arrangements are at work, that is, countries that defy classification in clearly established categories. Table 7.2 shows the compared means of the active and supplementary variable by clusters. Table 7.3 shows the frequencies of informative variables concerning the type of country (industrialized, emerging, developing or less developed), the geographical area and the HDI category (low to very high). Table 7.4 lists the countries belonging to each cluster and Fig. 7.4 maps the models in a world atlas.

Countries belonging to the first cluster are characterized by a high degree of decommodification and by an old, institutionalized, public protection system. Inequalities are significantly lower and human development greater than in other categories. In other words, that group has the best welfare outcomes, and is representative of the *decommodified social protection* model. The first cluster mainly includes European countries identified by Esping-Andersen (1990) as the Conservative model (France, Germany, Italy) and the Social Democratic model (Denmark, the Netherlands, Norway, Sweden). However, the six variables taken into account provide no clear basis for distinguishing between those two welfare regimes. Japan also illustrates the *decommodified* model. That result confirms the typologies describing the Japanese welfare state regime as a Conservative regime (Esping-Andersen 1990; Kangas 1994; Korpi and Palme 1998), but is not consistent with the findings of Castles and Mitchell (1993), who classified Japan as a *liberal* model. In fact,

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[11] More exactly, the standardized Euclidean distance between those countries and the barycentre is less than half the median distance.

Table 7.2 Compared means of active and supplementary variables by cluster

	Decommodified	Liberal	Social insecurity	Informal	Idiosyncratic	All
Remittances (% of GDP)	**1.30 (1.66)**	**1.30 (1.53)**	3.02 (3.41)	**18.63 (4.73)**	3.08 (2.81)	4.48 (6.44)
Mean age of programmes (years)	**81.00 (12.92)**	63.02 (15.66)	**43.56 (12.51)**	**49.18 (15.84)**	55.15 (7.43)	59.07 (19.70)
Number of programmes	**10.81 (2.24)**	**12.35 (2.28)**	**6.26 (1.45)**	7.69 (2.50)	8.69 (1.82)	8.99 (3.04)
Social contributions (% of GDP)	**11.42 (4.16)**	**3.14 (3.13)**	**0.74 (0.99)**	4.18 (4.32)	5.00 (1.81)	5.52 (5.38)
Social protection expenditure (% of GDP)	**21.81 (4.69)**	9.44 (5.13)	**4.09 (2.68)**	9.12 (5.74)	9.24 (3.65)	10.57 (7.78)
Ratio of public to private health expenditure	**3.73 (1.97)**	1.38 (1.01)	**0.96 (0.95)**	**1.10 (1.18)**	1.56 (0.87)	1.79 (1.68)
GDP per capita (constant 2005 $—PPP)	**24,545 (13,805)**	14,750 (11,775)	**5631 (10,276)**	**3838 (2656)**	7104 (7933)	11,402 (13,012)
HDI	**0.803 (0.11)**	**0.724 (0.11)**	**0.475 (0.171)**	0.576 (0.12)	0.563 (0.18)	0.617 (0.19)
Gini index	**32.84 (7.08)**	42.88 (7.61)	41.77 (7.34)	41.30 (10.37)	43.90 (9.18)	40.09 (9.01)

Note: The values that significantly differ (5% level) from those of other clusters (independent samples *t*-test) are in bold

Data sources: Author's calculations on data collected from IMF, World Bank, WDI, ILO Social Security Database and UNDP; for details, see Table 7.5

Table 7.3 Clusters' geographic and economic distribution

	Decommodified	Liberal	Social insecurity	Informal	Idiosyncratic	All
OECD	0.55	0.17	0.00	0.00	0.08	0.17
East Asia and Pacific	0.00	0.09	0.18	0.06	0.08	0.09
Eastern Europe and Central Asia	0.36	0.26	0.05	0.39	0.04	0.20
Latin America and the Caribbean	0.06	0.31	0.07	0.28	0.20	0.15
Middle East and North Africa	0.00	0.04	0.09	0.11	0.24	0.09
Sub-Saharan Africa	0.03	0.09	0.52	0.11	0.36	0.26
South Asia	0.00	0.04	0.09	0.05	0.00	0.04
Total	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Low HDI	0.03	0.00	0.61	0.23	0.36	0.29
Middle HDI	0.03	0.23	0.25	0.53	0.4	0.26
High HDI	0.25	0.54	0.07	0.24	0.16	0.22
Very high HDI	0.69	0.23	0.07	0.00	0.08	0.23
Total	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Industrialized countries	0.70	0.39	0.02	0.39	0.08	0.29
Emerging countries[a]	0.24	0.44	0.34	0.17	0.24	0.29
Developing countries	0.03	0.17	0.25	0.22	0.36	0.21
Less developed countries	0.03	0.00	0.39	0.22	0.32	0.21
Total	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*

[a]Emerging countries are those defined as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, the IMF or Standard and Poor's

Data sources: Author's calculations

the Japanese model is likely to be at the intersection of the *liberal* and Conservative models, as noted by Esping-Andersen (1997). Although some transition countries have implemented liberal reforms, social protection systems inherited from the socialist era have remained in place in countries such as the Czech Republic, Hungary, Poland, Romania and Ukraine, thus explaining their proximity to the *decommodified social protection* model.

Table 7.4 Classification of countries in the different clusters

Cluster 1—*Decommodified social protection* model (33 countries)

Austria	**Czech Republic**	**Hungary**	Malawi	**Slovenia**
Belarus	Denmark	Iceland	Netherlands	Spain
Belgium	Estonia	Ireland	Norway	Sweden
Bulgaria	Finland	Italy	**Poland**	Ukraine
Colombia	France	Japan	Portugal	United Kingdom
Croatia	Germany	Lithuania	**Romania**	
Cuba	Greece	Luxembourg	Slovak Republic	

Cluster 2—*Liberal social protection* model (23 countries)

Argentina	**China**	Macedonia	**Oman**	United States
Australia	Hong Kong	Mauritius	**Peru**	**Uruguay**
Azerbaijan	**India**	**Mexico**	**Russia**	Uzbekistan
Brazil	Kazakhstan	Namibia	Switzerland	
Chile	Latvia	New Zealand	Trinidad and Tob.	

Cluster 3—*Social insecurity* model (44 countries)

Afghanistan	**Dominican Rep**	**Korea, Rep.**	Rwanda	Tanzania
Bangladesh	Ethiopia	Lao	**Saudi Arabia**	**Thailand**
Burundi	Georgia	Madagascar	Senegal	**Turkey**
Cameroon	Ghana	Malaysia	Sierra Leone	Uganda
Central African Republic	Guatemala	Mauritania	Singapore	United Arab Emirates
Chad	Guinea	Morocco	**South Africa**	**Venezuela**
Congo, Rep.	Guinea-Bissau	Nigeria	Sri Lanka	Vietnam
Congo, Dem. Rep.	**Indonesia**	**Pakistan**	Sudan	**Zimbabwe**
Côte d'Ivoire	Kenya	Papua New Guinea	Syria	

Cluster 4—*Informal* (*Remittance-Based*) *social protection* model (18 countries)

Albania	Gambia	**Jordan**	Moldova	Serbia Montenegro
Armenia	Haiti	Kyrgyz Republic	Nepal	Tajikistan
Bosnia Herzegovina	Honduras	Lebanon	Nicaragua	
El Salvador	Jamaica	Lesotho	**Philippines**	

Cluster 5—*Idiosyncratic* types (25 countries)

Algeria	Cambodia	Gabon	Mongolia	Swaziland
Benin	Canada	**Iran**	Mozambique	Togo
Bolivia	Costa Rica	**Israel**	Niger	**Tunisia**
Botswana	**Ecuador**	Libya	Panama	Turkmenistan
Burkina Faso	**Egypt**	Mali	Paraguay	Yemen

Note: Bold characters refer to emerging countries, defined as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's
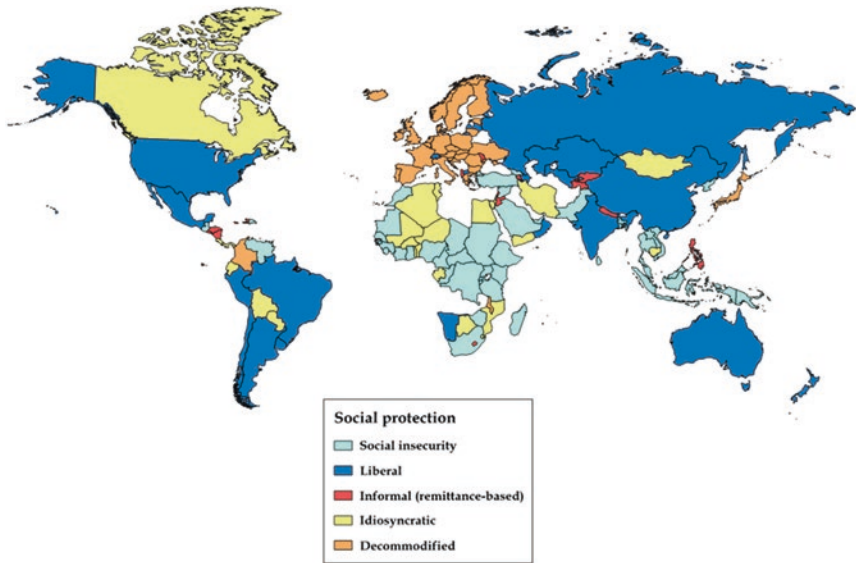
Fig. 7.4 Map of the social protection models

The second group, which refers to institutionalized systems of public social protection with a moderate degree of decommodification of social rights, is representative of the *liberal social protection* model. Human development and GDP per capita are high, but income inequality is greater than in the first group. The second group is heterogeneous, and includes countries in Latin America (31%) and Eastern Europe and Central Asia (26%), but also in Western Europe and North America. Not surprisingly, four Anglo-Saxon developed countries, Australia, New Zealand and the USA, are to be found in that group. The Swiss social protection system is also defined as a *liberal* model, in line with Castles and Mitchell's (1993) typology. The composition of the second cluster confirms the proximity of the *liberal* model and the Latin American model. The privatization of old-age pension and healthcare systems in Chile since the reforms of 1981 has been widely discussed in the literature on Latin America (Mitchell and Ataliba-Barreto 1997; Armada et al. 2001; Mesa-Lago and Muller 2002; Homedes and Ugalde 2005). For instance, old-age pension systems have been completely or partially privatized in most of the Latin

American countries belonging to that group, including Peru (1993), Argentina (1994) and Uruguay (1996).[12]

Another characteristic of the group is that it includes several large emerging countries, such as the BRICs (Brazil, Russia, India and China) and Mexico. Although India has some Beveridgean schemes inherited from English colonial rule, social expenditure is low compared to that of other developing countries (Justino 2006) and has even declined as a percentage of GDP, dropping from 1.6% in 1995 to 0.86% in 2005. Existing programmes cover only a small proportion of the population. For instance, in 2005, nearly 25.1% of the population aged over 65 received an old-age pension (ILO Social Security Database).

The low level of public social protection leads to a moderate level of decommodification, and recent programmes such as the National rural employment guarantee scheme (1995) and the Targeted public distribution system (1997)[13] are assistance schemes that have reinforced the liberal orientation of the system.

In the case of the Russian social protection system, the Soviet legacy remained apparent until the late 1990s. From 2000 onwards, a process of liberalization was introduced, with a view to reforming the social protection system (Clément 2007). The 2001 pension reform, the first step toward liberalization, followed the recommendations of the World Bank and established a three-pillar system combining pay-as-you-go and private schemes. That second group also includes other former Soviet Union countries, such as Azerbaijan, Kazakhstan, Latvia and Uzbekistan.

The third group is the *social insecurity* model. In that model, public protection is residual, and the degree of decommodification extremely low. The level of remittances is also moderate, which supports the idea that informal protection is limited and cannot compensate for the absence of an institutionalized system. The level of human development is, consequently, significantly lower than in the other groups. That group is also

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[12] As noted by Kritzer (2001), there are certain variations. Several countries, including Argentina and Uruguay, have introduced mixed systems that combine pay-as-you-go and private individual accounts, while the systems in Chile and Bolivia have been entirely privatized.

[13] In India, the *public distribution system* is an instrument for ensuring the availability of essential food items such as rice, wheat and sugar at affordable prices. In 1997, the *targeted public distribution system* replaced the old universal public distribution system, and only provides food assistance to the poor.

heterogeneous, although it mainly includes less developed countries, such as sub-Saharan African countries (52%), and the poorest Asian countries (Bangladesh, Cambodia, Laos and Myanmar). However, it also includes a number of emerging countries such as Indonesia, Korea, South Africa, Thailand and Turkey. The presence of several East Asian countries in that group confirms that welfare states are not protective in the sense defined by Rudra (2007, 2008) or, in other words, that they are not designed to meet social and redistributive objectives. Therefore, the group provides evidence of a productivist East Asian regime in which state intervention is determined by economic and industrial objectives, as noted by Holliday (2000). However, the presence of less developed countries in the same cluster shows that the robustness of that productivist model is weak.

By analogy with the classification provided by Wood and Gough (2006), the last-mentioned cluster refers to the *Informal Social Protection* model. As with the previous category, formal public protection is limited. However, the inflows of international remittances show that family or kinship solidarity mitigates vulnerability. The group includes 18 countries with a very high level of external remittances. For instance, remittances as a share of GDP are above 20% in Haiti, Honduras, Lebanon, Moldova and Tajikistan. Although the level of income inequality in the cluster 4 is close to that observed in the cluster 3 (*social insecurity* model), the existence of informal schemes could explain its higher level of human development. This is why this model has also been called *Informal (Remittance-Based)* social protection. That difference concerns countries that are comparable from an economic point of view. Examples include the Philippines and Indonesia, two countries with common economic characteristics and a similar development trajectory. Public social protection expenditure as a percentage of GDP is also extremely low in both countries (less than 2%). That economic proximity explains why they are both classified as "baby tigers", although the Philippines has a higher level of human development. Although it is impossible to establish any causality on the basis of such a comparison, one plausible explanation of that gap could be the existence of informal social protection mechanisms via international migration and remittances in the Philippines. The same observation applies when comparing Jordan and Lebanon (*informal social protection*) to Syria (*social insecurity*).

7.5   Conclusion

The present chapter, which uses Esping-Andersen's framework as a starting point, is a contribution to the analysis of social protection diversity in developing countries. However, as social protection models in developing economies are characterized by a plurality of social protection actors and the existence of a strong informal system, any relevant classification of social protection models requires the role of the government, community, market and family in promoting social security, the *welfare mix* of Wood and Gough (2006), to be jointly taken into account.

The empirical analysis carried out in the present study applies multidimensional statistical techniques to variables relating to the configuration of the *welfare mix*. However, unlike previous studies, a large sample of 143 countries (including industrialized countries, transition countries and most developing countries) was used. The PCA has been used to identify the degree of decommodification and the extent of informal social protection as the two key criteria for characterizing social protection. On that basis, we carried out a cluster analysis that produced a four-group typology including a *decommodified* model, a *liberal* model, a *social insecurity* model and a model of *informal social protection*.

The three main findings of this chapter can now be stated. First, most Latin American countries show clear similarities with the Anglo-American *liberal* model. The privatization of healthcare and old-age pension systems in Chile in the 1980s was to generate, in the 1990s, a second wave of privatization in other Latin American countries. Second, the results provide little evidence of a specific East Asian model. Although Indonesia, Korea, Singapore, Thailand, and Vietnam belong to the same group (i.e., *social insecurity* model), they share characteristics with less developed countries, such as sub-Saharan African countries. Third, the social protection situation of transition countries is somewhat diverse. Unlike many Eastern European countries, whose social protection systems are characterized by a significant degree of decommodification, Russia liberalized its system during the transition process, following the recommendations of the World Bank.

Even if the present study does not, it is true, allow any one social protection model to be uniformly valid for all emerging countries to be identified it is, nonetheless, possible to pinpoint a limited number of welfare regimes for those countries. Although Latin American countries and the BRICs

have many points in common with the *liberal* model, East Asian countries and South Africa are more appropriately classified within the *social insecurity* model. Although all emerging countries do have one feature in common, the low degree of decommodification of social rights, it should be noted that many of those countries have recently developed ambitious public schemes: the Child Support Grant in South Africa, the Oportunidades and Bolsa Familia programmes in Mexico and Brazil, the Minimum Living Standards Scheme in China, the National Rural Employment Guarantee Scheme in India, and the PhilHealth programme in the Philippines. These new programmes indicate that social protection is becoming an increasingly important concern for developing economies, suggesting that redistribution issues make increasing sense for governments as soon as the sustainability of economic growth is at stake. Many of those programmes, like the Oportunidades and Bolsa Familia programmes, aimed at poor families with children, or the PhilHealth programme designed to support informal workers, are schemes designed to target specific populations (the poor, rural workers, informal workers, etc.). This would suggest that there is a tendency for emerging countries to converge towards the *liberal* model, according their preference to selective rather than universal protection.

Appendix

Table 7.5 Statistical sources

Code	Label	Source
SOC_EXP	Public social protection and health expenditure (% of GDP)	IMF
CONTRIB	Social contributions (% of GDP)	World Bank, WDI
MEAN_AGE	Mean age of public social protection	ILO Social Security Database
NB_PROG	Total number of public social protection programmes	ILO Social Security Database
RATIO_EXP	Commodification ratio (ratio of public to private health expenditure)	World Bank, WDI
REMIT	Workers' remittances and compensation of employees (% of GDP)	World Bank, WDI
GINI	Gini index	World Bank, WDI
HDI	Human Development Index	UNDP
GDPH	GDP per capita, PPP (constant 2005 international $)	World Bank, WDI

Table 7.6 Simple correlations between active variables

	Remittances (% of GDP)	Mean age of programmes (years)	Number of programmes	Social contributions (% of GDP)	Social protection expenditure (% of GDP)	Ratio of public to private health expenditure
Remittances (% of GDP)	**1.000**					
Mean age of programmes (years)	−0.240	**1.000**				
Number of programmes	−0.206	**0.544**	**1.000**			
Social contributions (% of GDP)	−0.126	**0.553**	0.231	**1.000**		
Social protection expenditure (% of GDP)	−0.157	**0.684**	**0.417**	**0.683**	**1.000**	
Ratio of public to private health expenditure	−0.234	**0.452**	0.296	**0.402**	**0.638**	**1.000**

Note: Bold values indicate a significant correlation at the 5% level

Data sources: Author's calculations on data collected from IMF, World Bank, WDI, ILO Social Security Database and UNDP; for details, see Table 7.5

Table 7.7 Data summary statistics (means and standard deviations), 143 countries

	All (N = 143)	OECD	East Asia and Pacific	Eastern Europe and Central Asia	Latin America and the Carribean	Middle East and North Africa	Sub-Saharan Africa	South Asia
Remittances (% of GDP)	4.48 (6.44)	0.65 (0.74)	3.26 (4.74)	6.92 (8.45)	6.48 (7.60)	6.89 (7.67)	3.03 (4.65)	7.83 (5.35)
Mean age of programmes (years)	59.07 (19.70)	82.00 (13.51)	39.09 (16.42)	66.13 (17.97)	59.90 (11.47)	48.05 (7.92)	44.57 (9.87)	45.92 (10.66)
Number of programmes	8.99 (3.04)	11.08 (2.55)	7.55 (2.98)	10.64 (1.98)	9.60 (3.33)	6.80 (1.87)	6.46 (1.72)	8.00 (3.16)
Social contributions (% of GDP)	5.52 (5.38)	9.93 (5.02)	1.98 (2.49)	8.85 (4.90)	2.92 (2.34)	1.64 (2.38)	0.58 (0.48)	0.1 (0.09)
Social protection expenditure (% of GDP)	10.57 (7.78)	22.30 (4.75)	3.95 (2.68)	13.44 (6.85)	8.38 (4.06)	8.43 (3.31)	6.62 (5.06)	1.70 (1.74)
Public to private health expenditure	1.79 (1.66)	3.47 (1.90)	1.25 (1.42)	2.00 (1.56)	1.55 (1.78)	1.68 (1.33)	1.14 (0.98)	0.37 (0.24)

	All (N = 140)	Low HDI	Medium HDI	High HDI	Very high HDI
Remittances (% of GDP)	4.37 (6.28)	4.40 (6.00)	7.71 (7.88)	4.16 (5.70)	0.63 (0.70)
Mean age of programmes (years)	59.20 (19.84)	41.58 (11.31)	51.14 (12.25)	63.66 (14.51)	78.50 (17.73)
Number of programmes	9.01 (3.06)	6.18 (1.52)	8.38 (2.64)	10.55 (2.75)	10.71 (2.71)
Social contributions (% of GDP)	5.57 (5.38)	0.52 (0.52)	2.15 (2.23)	6.41 (4.79)	9.91 (5.22)
Social protection expenditure (% of GDP)	10.58 (7.85)	5.33 (4.79)	7.59 (4.92)	11.76 (5.91)	19.52 (7.40)
Public to private health expenditure	1.75 (1.61)	1.04 (1.16)	1.20 (1.11)	1.68 (0.90)	3.37 (2.02)

Table 7.7 (continued)

	All (N = 143)	Industrialized countries	Emerging countries[a]	Developing countries	Less developed countries
Remittances (% of GDP)	4.48 (6.44)	4.48 (7.56)	3.53 (4.69)	5.11 (6.77)	5.33 (6.82)
Mean age of programmes (years)	59.07 (19.70)	74.04 (18.67)	58.09 (17.80)	48.90 (8.07)	41.76 (12.20)
Number of programmes	8.99 (3.04)	11.08 (2.29)	9.21 (3.04)	7.22 (2.50)	6.28 (1.32)
Social contributions (% of GDP)	5.52 (5.38)	8.84 (5.11)	4.75 (5.07)	1.95 (2.39)	0.41 (0.45)
Social protection expenditure (% of GDP)	10.57 (7.78)	17.65 (7.74)	9.44 (6.47)	6.86 (3.92)	5.85 (5.15)
Public to private health expenditure	1.79 (1.68)	2.62 (1.86)	1.58 (1.62)	1.70 (1.56)	1.01 (1.06)

[a]Emerging countries are those defined as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations; for details, see Table 7.5

References

Armada, Francisco, Carles Muntaner, and Vicente Navarro. 2001. Health and Social Security Reforms in Latin America: The Convergence of the World Health Organization, the World Bank, and Transnational Corporations. *International Journal of Health Services* 31 (4): 729–768.

Bambra, Clare. 2007. Going beyond the Three Worlds of Welfare Capitalism: Regime Theory and Public Health Research. *Journal of Epidemiology and Community Health* 61 (12): 1098–1102.

Barrientos, Armando and David Hulme. 2008. Social Protection for the Poor and Poorest in Developing Countries: Reflections on a Quiet Revolution. *BWPI Working Paper* No. 30.

Bonoli, Giuliano. 1997. Classifying Welfare States: A Two-dimension Approach. *Journal of Social Policy* 26 (3): 351–372.

Castles, Francis and Deborah Mitchell. 1991. Three Worlds of Welfare Capitalism or Four? *Discussion Paper* No. 21, Australian National University, Graduate Program in Public Policy.

Castles, Francis, and Deborah Mitchell. 1993. Worlds of Welfare and Families of Anations. In *Families of Nations: Patterns of Public Policy in Western Democracies*, ed. Francis Castles. Aldershot: Dartmouth.

Clément, Matthieu. 2007. Tentative Evaluation of the Impact of Public Transfers on the Dynamics of Poverty: The Case of Russia. *International Social Security Review* 60 (1): 59–80.

Destremau, Blandine and Bruno Lautier. 2006. *Analyse et comparaison des systèmes de protection sociale du monde en développement. Eléments de typologie et de méthode*. Paris: Réseau impact.

Esping-Andersen, Gøsta. 1990. *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

———. 1997. Hybrid or Unique? The Japanese Welfare State between Europe and America. *Journal of European Social Policy* 7 (3): 179–189.

Esser, Ingrid, Tommy Ferrarini, Kenneth Nelson, and Ola Sjöberg. 2009. A Framework for Comparing Social Protection in Developing and Developed Countries: The Example of Child Benefits. *International Social Security Review* 62 (1): 91–115.

Evans, Peter B. 1997. The Eclipse of the State? Reflections on Stateness in an Era of Globalization. *World Politics* 50 (1): 62–87.

Fenger, H., and J. Menno. 2007. Welfare Regimes in Central and Eastern Europe: Incorporating Post-communist Countries in a Welfare Regime Typology. *Contemporary Issues and Ideas in Social Sciences* 3 (2): 1–30.

Ferreira, Maurizio. 1996. The Southern Model of Welfare in Social Europe. *Journal of European Social Policy* 6 (1): 17–37.

Garrett, Geoffrey. 2001. Globalization and Government Spending around the World. *Studies in Comparative International Development* 35 (4): 3–29.

Gough, Ian. 2001. Globalization and Regional Welfare Regimes: The East Asian Case. *Global Social Policy* 1 (1): 163–189.

Holliday, Ian. 2000. Productivist Welfare Capitalism: Social Policy in East Asia. *Political Studies* 48: 706–723.

Holzmann, Robert, Lynne Sherburne-Benz, and Emil Tesliuc. 2003. Gestion du risque social: la Banque Mondiale et la protection sociale dans un monde en voie de mondialisation. *Revue Tiers Monde* 175: 501–526.

Homedes, Nuria, and Antonio Ugalde. 2005. Why Neoliberal Health Reforms have Failed in Latin America. *Health Policy* 71: 83–96.

Johnson, Chalmers. 1982. *MITI and Japanese Miracle: The Growth of Industrial Policy 1925–1975*. Stanford: Stanford University Press.

Justino, Patricia. 2006. Social Security in Developing Countries: Myth or Necessity? Evidence from India. *Journal of International Development* 18: 1–16.

Kangas, Olli. 1994. The Politics of Social Security: On Regressions, Qualitative Comparisons and Cluster Analysis. In *The Comparative Political Economy of the Welfare State*, ed. Thomas Janoski and Alexander M. Hicks. Cambridge, MA: Cambridge University Press.

Kasza, Gregory J. 2002. The Illusion of Welfare Regimes. *Journal of Social Policy* 31 (2): 271–287.

Kaufman, Robert R., and Alex Segura-Ubiergo. 2001. Globalization, Domestic Politics, and Social Spending in Latin America: A Time-Series Cross-Section Analysis, 1973–1997. *World Politics* 53 (4): 553–587.

Korpi, Walter, and Joakim Palme. 1998. The Paradox of Redistribution and the Strategy of Equality: Welfare State Institutions, Inequality and Poverty in the Western Countries. *American Sociological Review* 63: 662–687.

Kritzer, Barbara E. 2001. Social Security Reform in Central and Eastern Europe: Variations on a Latin American Theme. *Social Security Bulletin* 64 (4): 16–26.

Ku, Yeun-Wen. 1997. *Welfare Capitalism in Taiwan: State, Economy and Social Policy*. London: Macmillan Press.

Kwon, Huck-Ju. 1999. *The Welfare State in Korea: The Politics of Legitimation*. Basingstoke: Macmillan.

Lee, Yih-Jiunn, and Yeun-Wen Ku. 2007. East Asian Welfare Regimes: Testing the Hypothesis of the Developmental Welfare State. *Social Policy and Administration* 41 (2): 197–212.

Leibfried, Stephan. 1992. Towards a European Welfare State? On Integrating Poverty Regimes into the European Community. In *Social Policy in a Changing Europe*, ed. Zuzsa Ferge and Jon E. Kolberg. Frankfurt am Main: Campus Verlag.

Mesa-Lago, Carmelo, and Katharina Muller. 2002. The Politics of Pension Reform in Latin America. *Journal of Latin American Studies* 34 (3): 687–715.

Mishra, Ramesh. 1999. *Globalization and the Welfare State*. Cheltenham: Edward Elgar.

Mitchell, Olivia S. and Fabio Ataliba-Barreto. 1997. After Chile? Second-round Pension Reforms in Latin America. *NBER Working Paper* No. W6316.

Niño-Zarazúa, Miguel, Armando Barrientos, and David Hulme. 2012. Social Protection in Sub-Saharan Africa: Getting the Politics Right. *World Development* 40 (1): 163–176.

Quinn, Dennis. 1997. The Correlates of Changes in International Financial Regulation. *American Political Science Review* 91 (3): 531–552.

Rodrik, Dani. 1997. *Has Globalization Gone Too Far?* Washington, DC: Institute for International Economics.

Rudra, Nita. 2002. Globalization and the Decline of the Welfare States in Less Developed Countries. *International Organization* 56 (2): 411–445.

———. 2007. Welfare States in Developing Countries: Unique or Universal? *Journal of Politics* 69 (2): 378–396.

———. 2008. *Globalization and the Race to the Bottom in Developing Countries. Who Really Gets Hurt?* Cambridge: Cambridge University Press.

Wibbels, Eric. 2006. Dependency Revisited: International Markets, Business Cycles, and Social Spending in the Developing World. *International Organization* 60 (2): 433–468.

Wood, Geof, and Ian Gough. 2006. A Comparative Welfare Regime Approach to Global Social Policy. *World Development* 34 (10): 1696–1712.

8

Finance and Credit Market

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8.1 Introduction

Capitalist investment and production are dependent on finance, which consists of the banking sector (including supervisory institutions such as central banks and governments), stock markets and the money supply. As regards the role of financial development in economic development, however, two main schools of thought can be opposed.

The first one asserts that financial development plays a limited role in accompanying the development of real activity (Robinson 1952; Lucas 1988). This school considers that when the economy develops, the financial system develops. For example, Robinson (1952), asserts that "where enterprises lead, finance follows" and, for Lucas (1988), economists "badly over-stress" the role of financial factors in economic growth. As for development economists, they frequently ignore this role in their studies.

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For Rajan and Zingales (1998), although financial development is essential for growth, it is only "a lubricant but not a substitute for the machine". For Rajan and Zingales (1998), what is essential is the availability of profitable investment opportunities.

The second school of thought claims that financial development boosts innovation and economic growth (Bagehot 1873; Schumpeter 1911; McKinnon 1973; Levine 1996). For these authors, causality proceeds from financial to economic development; it is only at a later stage that financial development leads on to growth. Haber et al. (2008) assert that "countries do not have large banking systems and securities markets because they are wealthy; they are wealthy because they have large banking systems and securities markets". Similarly, for King and Levine (1993), financial development does not merely follow in the wake of economic activity. They affirm that the robust relationship between the degree of financial development and the rate of economic growth indicates much more than a positive association between contemporaneous shocks and financial/economic development. For Levine (1996), there is even evidence that the level of financial development is a good predictor of future growth rates, capital accumulation and technological change.[1]

Between those two polar positions, we can find another group of scholars for whom the financial market promotes growth, with growth, in turn, encouraging capital market formation (Greenwood and Smith 1997; Greenwood and Jovanovic 1990). Market structures would, in this case, be endogenous. However, in Greenwood and Jovanovic (1990), financial intermediaries invest more productively than individuals, because they can identify investment opportunities more easily. This means that, by funding the most profitable investment projects, financial intermediaries promote economic activity through the increase of capital returns. In turn, output growth allows more costly investments to be implemented and capital market size and diversification to further increase (Levine 1996; Demirgüc-Kunt 2007).

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[1] However, for Rajan and Zingales (1998), financial development may predict economic growth simply because financial markets anticipate future growth. Equally, these authors consider that the stock market capitalizes the present value of growth opportunity, while financial institutions lend more if economic sectors grow.

This chapter focuses less on the question of market size than on the issues related to the financial system's shape, whether market-based, bank-based or more informally structured, and to the government's role in it. We are more specifically interested in the variety of institutional arrangements underlying financial systems, and not in their effect on growth or on any other economic outcome. Special emphasis will be placed on emerging economies since, although they are emerging financial markets with high returns, they undergo frequent periods of financial stress as well as episodes of high banking sector vulnerability. As such, they may well have original modes of sector regulation that need to be described. In order to identify and compare the types of financial systems across a wide range of both developed and developing countries, we proceed in three steps. First, we justify the choice of the variables that allow us to measure the shape and institutional set-up of financial systems. Then, we perform a Principal Component Analysis (PCA), which is, in turn, followed by a clusterization of financial models.

8.2 The Diversity of Finance and Credit Market Systems: An Overview

Financial systems are generally described in terms of various outcome indicators informing about market depth, size, accessibility and general architecture. These indicators provide valuable information about the type of financial system, that is, whether formal finance is dominant or not, whether it is dominated by market or by banks and whether access is universal or, on the contrary, selective or discriminatory. Financial systems can equally be described by their legal characteristics. This implies examining the influence state regulation and rules have on the financial system, notably by imposing constraints on market prices and private actor behaviour.

In what concerns standard outcome characteristics, that is, the depth and size of the financial system (as well as access to it), several indicators are currently used in the literature. Financial depth is generally assessed by the size of financial intermediaries or by the size of their transactions relative to that of the economy (Goldsmith 1969; Rajan and Zingales 1998;

King and Levine 1993; Levine and Zervos 1996). The most frequently used indicators are the GDP share of the financial system liquid liabilities (M2), the value of credit by financial intermediaries to the private sector, or the value of stock market capitalization (Demirgüç-Kunt 2007). The amount of the national debt, as well as state financing by securities or credits,[2] and the size of securities markets, are alternative indicators of financial depth. Financial system accessibility is also related to the depth of the financial system. Limited access is a central feature of developing countries' fledgling financial systems. In fact, the use of bank loans is correlated with company size, and only the biggest firms have most of their start-up capital financed by bank debt. For example, Fafchamps (2004) shows, in his study on Zimbabwe, that bank business start-up loans were used by only 10% of firms. Loans from friends or family are significant sources of start-up capital for microenterprises and, to a lesser extent, for small firms whose contact with banks is negligible. Consequently, the existence of a large "informal sector" signifies that access to bank financing is really limited. In that case, a low level of private credit is generally synonymous with a large proportion of informal finance.[3]

Various indicators are also currently used to assess the structure of the financial system: (1) the relative size of private and state actors in the provision of credit, and (2) the relative size of banks and markets. The rationale is the following: commercial banks are likely to offer better risk management and investment information services than central banks. Equally, financial systems that primarily fund the private sector probably provide more services than those that simply funnel credit to the government or to state-owned enterprises. The gap between what banks pay the providers of funds, and what they obtain from bank credit users, is generally employed in studies to measure market efficiency (Demirgüc-Kunt 2007). To measure *risk diversification and international integration*, Levine and Zervos (1996) use Korajczyk's (1996) estimate of the degree of international integration of national stock markets, as well as the IAPM (International Arbitrage Pricing Model).

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[2] In our empirical study we introduce the amount of public debt financed by securities.

[3] On informal finance as both a substitute for and a complement to formal finance, see Allen et al. (2013a,b).

It is true that the size and structure of banking systems are influenced by both the demand for and the supply of financial services and, fundamentally, by the overall degrees of wealth concentration and economic development (Goldsmith 1969). However, as underlined by Haber (2008), bank and financial service supply and demand depend on a series of factors, which seem to be particularly relevant in the context of developing countries. These factors are intricately related to the institutional dimension of the financial sphere insofar as they concern expropriation risks, contract enforcement costs and the political economy of financial development.

Economic institutions have a deep influence on the nature and performance of the financial system. Growth of both banks and security markets is not possible without a government that ensures the enforcement of financial contracts. In countries where the judicial system facilitates contracts between private agents, and protects the rights of property and investors, savers are more inclined to invest in financial markets. Countries with an effective legal system, more specifically, laws and rules that give guarantees to debtors and banks (a property register, a law regarding bankruptcy and foreclosure and a police force endowed with coercive power) have more developed and efficient financial systems (La Porta et al. 1998; Levine 2002; Beck et al. 2000, 2005). For Stulz and Williamson (2003), religion and culture also influence financial development. Catholic and Muslim countries tend, for example, to keep more legal or political controls on finance. Legal origin has also been put forward to explain why some countries have much bigger capital markets than others: their investors benefit from more legal protection (La Porta et al. 1998). British colonies, since they adopted the legal institutions of British common law, have benefited from better protection for minority shareholders and enjoyed a more developed financial system than the French colonies, which adopted the French Civil Code (Haber et al. 2008; La Porta et al. 1998).

The legal origin approach has been criticized by various scholars who argue that political institutions are more important than legal origins in understanding financial system diversity (Rajan and Zingales 2003; Lamoreaux and Rosenthal 2004). Whatever the legal origins, the risk of expropriation is higher when political and economic insti-

tutions are less capable of limiting the predatory power of government or any other dominant group. Alesina et al. (2003), and Easterly and Levine (2003) have argued that, in economies where there are major ethnic differences, the ruling group tends to implement policies that expropriate resources, and to restrict the rights of other ethnic groups. In the same vein, Fafchamps (2004) shows, in a study on Kenya, Tanzania, Zambia and Zimbabwe that, in the case of "trade credit usage", there is an ethnic bias among manufacturing firms. The direction of this bias is, in general, detrimental to entrepreneurs of African descent, but favourable to entrepreneurs originating from outside Africa. In this study, statistical discrimination and network effects can exclude certain firms from credit markets and from "normal" commercial practices. Black entrepreneurs and female-headed firms appear to have a harder time obtaining supplier credit, but ethnicity and gender do not greatly interfere with access to bank overdrafts and formal loans. In order to promote a well-functioning financial system, governments should ensure a stable political and macroeconomic environment, because instability and corruption tend to have negative effects on the business environment, financial development and growth (Detragiache et al. 2005; Ayyagari et al. 1999).

As for purely political institutions, they are also relevant in understanding the diversity of financial systems. The relationship between the financial system and government can exert considerable influence on economic actors. First, central banks, which implement the monetary policy, are more or less independent of governments. Monetary policy choices also affect financial development, and empirical studies show that lower and stable inflation rates permit higher levels of financial development (banks and stock markets) (Boyd et al. 2001). When state-owned banks are predominant—which is often the case in least developed countries (LDCs)—the financial system is less developed, more concentrated, and countries are more likely to face systematic risks (La Porta et al. 1999). Second, the government generally depends heavily on banks and markets to finance its budget. Centralized and powerful states are more likely to control these sources of funds to finance their debt. They are equally more efficient at implementing policies that protect the interests of the elite than the more decentralized political systems. Conversely, insofar

as the banking system constitutes a source of finance for government,[4] powerful and centralized states are also more sensitive to bank system control and tend to foster bank concentration (Haber 2004; Rajan and Zingales 2003). Third, outcomes like interbank competition intensity, the financial system's degree of market- or bank-orientation, or the nature of the articulation between the banking sector's private and state-owned enterprises are all determined by politics.

8.3   Assessing Finance and Credit Market Systems

In connection with the previous literature overview, 14 quantitative variables are considered in our PCA and cluster analysis.[5]

Outcome indicators inform on the depth and structure of the financial system. Liquid liabilities as a percentage of GDP (M3), as well as the sum of market capitalization plus domestic credit provided by the banking sector as a percentage of GDP (*Financial development* noted *Devfin*), are both used as a proxy for the depth and accessibility of the financial system. The financial system structure is proxied by two indicators measuring the extent to which the system is bank-oriented or market-oriented: the market capitalization to domestic credit provided by banking sector ratio, called *financial architecture* and noted *Archi*, and the bank credit share in the overall financing of the economy, called *Domestic credit* and noted *Domcred*. The *level of lending interest rate (in %)* noted *Lend-ir*, is a measure of both the difficulties to obtain capital, and the degree of competition in the banking sector. Two additional variables inform on the financial system's degree of dependence on State intervention and external regulation. The *Interest control index* (noted *Int_Cont*) measures if interest rates are controlled by state, central banks or whether banks can freely establish interest rates. The *Credit regulation index* (noted

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[4] Governmental financial sources include revenues from taxes on bank capital or bank profits, dividend income from bank stock, and the mandatory purchase of government bonds.

[5] The sources are presented in Table 8.5.

Cdtreg_C) assesses general internal banking regulation by state or central banks (rules, ownership of banks, foreign bank competition). Both indexes vary from 0 (less protection) to 10 (more protection). In a nutshell, these two indicators measure the degree of competition between banks.

In order to control for legal dimensions, we have used two indexes of investor and creditor protection. The *Legal rights of borrowers and lenders index* (called Legal-rights and noted *leg_rights*)[6] and the *Credit information availability* index (noted *Cred_info*).[7]

Several variables measure investment restrictions on international capital movements: *Capital controls C* (noted *CAPCONTC*) is an index which assesses restrictions on international capital flows, with a higher score indicating less restrictions to capital inflows. We have also used an indicator called *Capital controls I* which measures the percentage of the total number of capital controls listed by *IMF_index* that is not levied by the country (noted *CAPCONT-I*); in this case, a higher score means that a smaller number of capital controls have been established by the country. Foreign Direct Investment (FDI) as a percentage of GDP (noted *FDI*) is also used as a proxy for openness of the financial system, and Investment restrictions (noted *Inv_Rest*) measure the level of restrictions to FDI.

The initial dataset consisted of 154 countries. The reference year for all observations is 2005. When data was missing, we used older data, post-2000, or nearest neighbour extrapolations. We had also to reduce the initial sample of 154 countries by eliminating those individual countries for which fewer than 50% of variables were known, with the representativeness of the remaining sample being controlled for. Consequently, our final dataset is composed of 133 countries.

The data summary statistics and simple correlations between considered variables are shown in Appendix Tables 8.5 and 8.6. The correlation matrix shows that four variables are strongly correlated one another: Domestic Credit, M3 (Liquidity), Financial Development and Market capitalization. We choose to keep all these variables in the analysis because they allow us to describe the depth of the financial market, the

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[6] This index varies from 0 (less protection) to 10 (more protection).

[7] This index varies from 0 (less information) to 6 (more information).

size of capital markets (and to test the market-based hypothesis), or the level of domestic credit (and to test the hypothesis of the bank-market-oriented) in each country.

8.4 Models of Finance

8.4.1 The Main Patterns of Differentiation of Finance and Credit Market Governance

In order to identify the main patterns of financial system differentiation or similarity, proximities within the factorial space of our 13 variables and 133 individual countries have been analysed using a PCA. To complete the analysis, three categorical variables, describing the geographical localization, the Human Development Index (HDI) level and socioeconomic situation of each country, were added as supplementary variables of characterization.[8] The PCA results are summarized in Table 8.1 and Figs 8.1 and 8.2. The number of components that are considered and interpreted depends on (i) the proportion of total variance explained by each component, (ii) the absolute variance explained by each component (the eigenvalue of each component retained should exceed one), and (iii) the ability of each component to be interpreted meaningfully. By examining the results of the PCA, we were able to extract four principal components, accounting for more than 62% of the total variance.

Table 8.1 shows PCA eigenvalues,[9] active variables correlation and supplementary variable coordinates. Although four components have eigenvalues higher than 1 (Kaiser's criterion of factor extraction), a break after the second component could be detected in the scree plot. We therefore chose to examine only the first two principal components. The first component (PC1) explains 33.54% of the total variance and the second 11.68%. In consequence, 45.21% of the complete dataset

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[8] Note that these variables do not affect the construction of principal factors.

[9] The 'factorability' of the database was verified: The Bartlett's test of sphericity shows that the correlation matrix is statistically different from an identity matrix ($p = 0.000$), and the Kaiser-Meyer-Olkin score of sampling adequacy is 0.8, which is close to 1 (>0.6), indicating that patterns of correlation are relatively compact. Factor analysis is therefore appropriate.

Table 8.1 PCA Eigenvalues—active variable-axis correlations[a] and supplementary variable coordinates

	PC1	PC2	PC3	PC4	PC5
Eigenvalues	**4.6951**	**1.6350**	**1.2664**	**1.1002**	0.9194
% of variance	33.54	11.68	9.05	7.86	6.57
Cumulative %	33.54	45.21	54.26	62.12	68.69
Domestic credit	−0.81	−0.08	0.33	−0.14	−0.28
M3	−0.75	0.22	0.15	−0.24	−0.30
Market capitalization	−0.64	0.60	0.10	−0.09	0.08
Financial development	−0.91	0.27	0.19	−0.14	−0.7
Financial architecture	−0.38	0.48	−0.23	−0.20	0.63
Legal rights	−0.55	−0.13	−0.12	0.25	0.7
Credit information	−0.55	−0.43	0.2	0.18	−0.3
Lend-ir	0.49	0.25	0.27	0.17	−0.27
Investment restrictions	−0.76	−0.26	−0.50	0.20	0.10
FDI	−0.28	0.39	−0.28	0.43	−0.25
Capital controls C	−0.19	−0.3	0.47	0.68	0.34
Capital controls I	−0.10	0.32	−0.56	0.42	−0.23
Interest controls	−0.50	−0.41	−0.49	−0.17	−0.09
Credit regulation	−0.54	−0.41	−0.20	0.18	0.13
OECD	**−2.43**	**−0.63**	**0.49**	−0.16	0.11
East Asia and Pacific	**−2.19**	**0.80**	−0.43	0.23	−0.34
Europe and Central Asia	0.23	**−0.57**	**−0.56**	**0.69**	0.22
Latin America and the Caribbean	0.62	−0.28	0.16	−0.09	**0.13**
Middle East and North Africa	−0.46	**1.06**	−0.13	**−1.03**	−0.22
Sub-Saharan Africa	**1.80**	**0.36**	0.15	0.7	−0.12
South Asia	0.58	−0.45	−0.16	−0.67	0.16
Low HDI	**2.00**	**0.52**	0.15	−0.7	0.4
Middle HDI	0.44	−0.08	−0.25	−0.11	**−0.45**
High HDI	−0.15	−0.23	−0.08	0.20	**0.47**
Very high HDI	**−2.26**	−0.32	0.14	0.03	0.07
Industrialized countries	**−1.43**	**−0.64**	0.19	0.20	0.07
Emerging countries[b]	**−0.80**	0.00	**−0.30**	**−0.28**	−0.05
Developing countries	**−0.60**	0.37	−0.22	0.19	0.00
Less developed countries	**2.23**	**0.51**	**0.44**	−0.05	−0.01

[a]For supplementary variables, significant correlations at a 5% level are shown in bold characters

[b]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations on data collected from World Bank, WDI, IMF Financial Access survey, Doing Business project, UNCTAD, WEF global data, WEF Global Competitiveness Report; for details, see Table 8.5
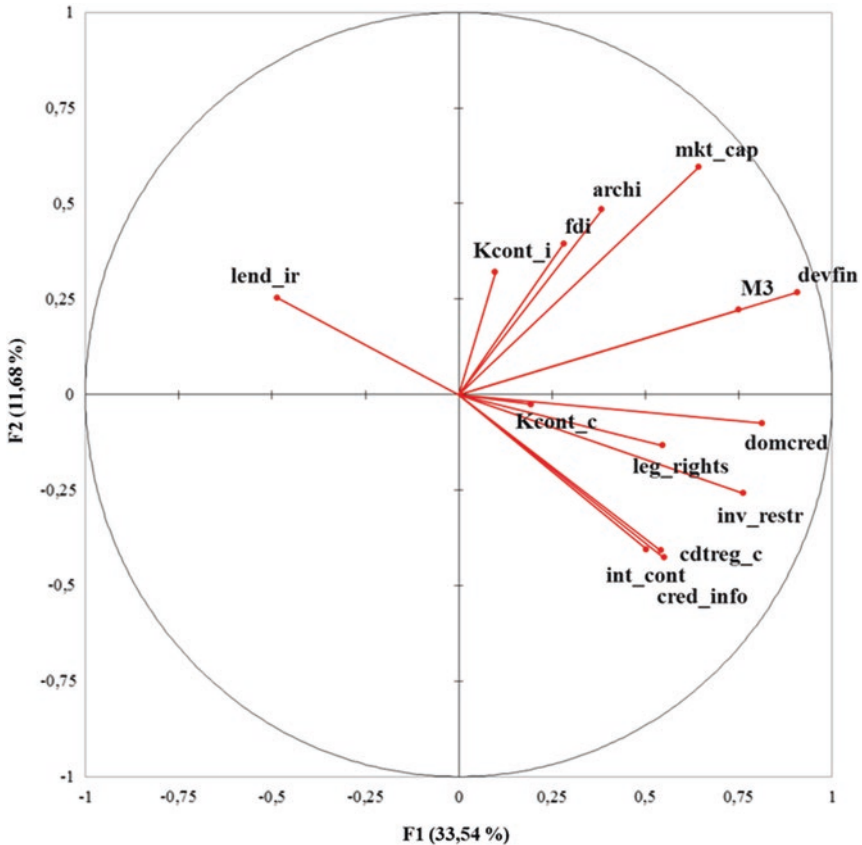
Fig. 8.1   Projection of active variables on the first factorial plan. *Data source*: Author's calculations

information is captured by the first plan, with the first component thus explaining 5% of total variance. Variables contributions show that the first component captures mostly negative correlations between M3, DF (liquidity, market size), CIA (credit information), INV-REST (restriction on FDI), INT_CONT. Consequently, countries with a deep financial market are those which have good credit information, a deregulated bank system, low internal controls on banks and low restrictions on capital movements. Not surprisingly, correlations of supplementary variables with this component show that sub-Saharan African or South
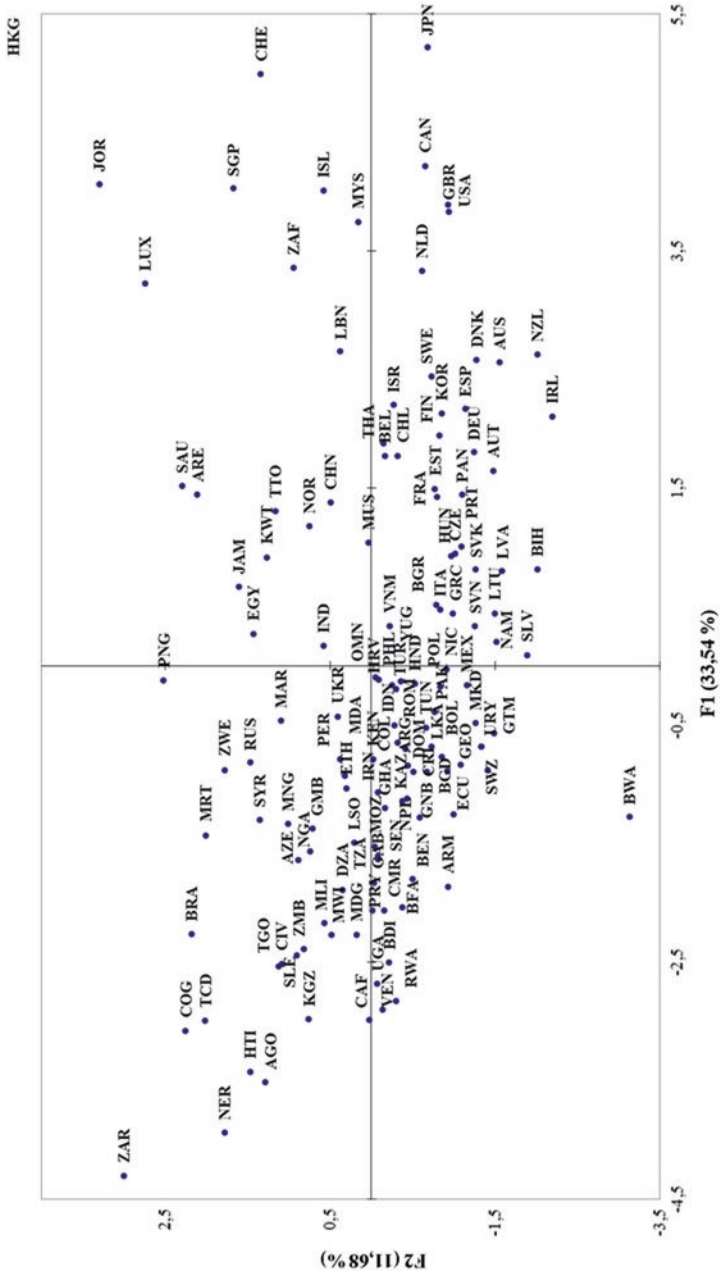
Fig. 8.2 Projection of countries on the first factorial plan. *Data source:* Author's calculations

Asian countries with low HDI have poor financial systems; and that OECD industrialized or Eastern European and Central Asian emerging countries, with generally high or very high HDI, have the most developed financial systems (Table 8.1). As an illustration, the United Kingdom and Hong Kong, which are big financial markets, with a high INV-REST index, have very deregulated systems, with FDI representing 7% of GDP. The first factor (PC1) also captures positive correlation between these variables and the LIR (lending interest rate). The localization of countries regarding this first component can be interpreted in terms of financial development depth, but also in terms of facility of access to funds. This first component therefore distinguishes countries according to their financial development level. Poor systems are localized on the left of the first plan, whereas very sophisticated and complete systems are on the right. For example, on the projection of the individual countries on the first plan (Fig. 8.2), we can see, on the right of the plan, countries like Canada, Denmark, France, Germany, New Zealand, United Kingdom and the USA, whose financial markets are mature. Conversely, in the poor countries located on the left of the horizontal axis, like Ethiopia, Guinea, Mozambique, Niger or Sierra-Leone, accessibility to the capital markets remains difficult. The fact that these such dynamic emerging economies as Brazil, China or India also have poorly developed financial systems is rather counter-intuitive. It can, however, be explained by the large size of these countries' populations, which reduces the average finance access level.

Most of the variance explained by second component (PC2) comes from FDI and Market capitalization, CAPCONTC and, finally, from ARCHI variables. Consequently, this second factor captures, for capital movements, the degree of the financial system's international openness, deregulation and market orientation. Figure 8.1 shows that the most open, deregulated and market-based financial systems are located at the top of PC1 whereas the more closed, regulated and bank- or informal-finance-based are located at the bottom of the same component.

Table 8.3 also shows that the third component (PC3) captures negative correlations between Capital controls, Interest controls, Investment restrictions and Banking sector regulation. Consequently,
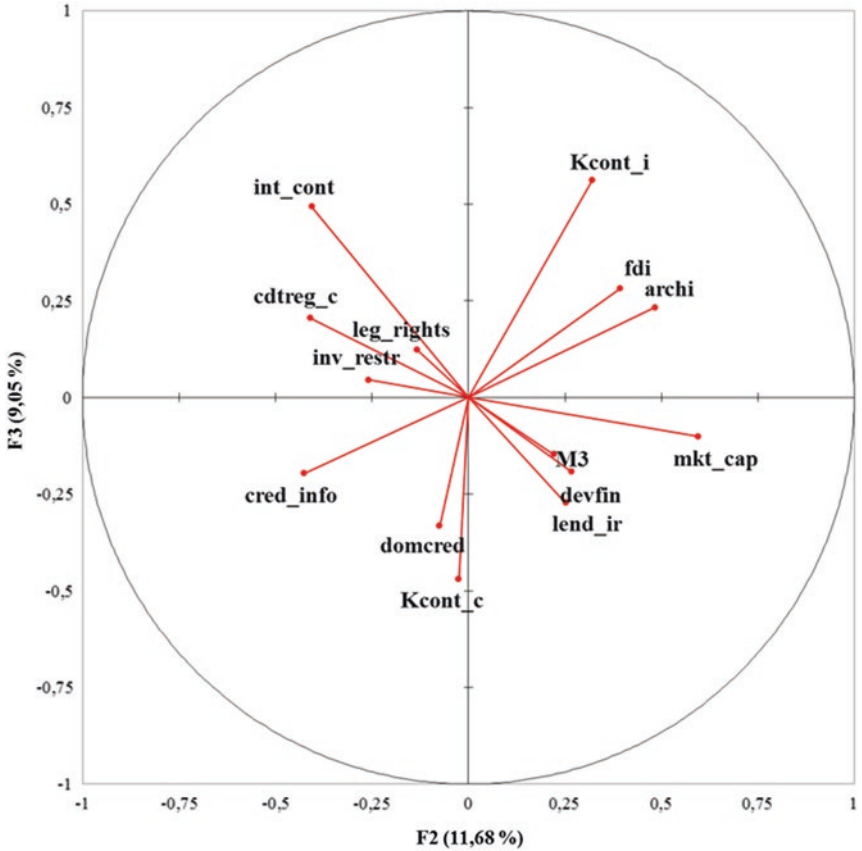
Fig. 8.3 Projection of active variables on the first factorial plan. *Data source*: Author's calculations; see Table 8.5 for details

this axis opposes highly regulated bank-based to deregulated market-based systems.

PCA analysis lead us to the conclusion that national financial systems are mainly differentiated by their levels of (i) financial development, (ii) international openness, and (iii) banking sector controls. In order to back up PCA results, 25 bootstrap replications of the initial sample have been implemented in order to provide confidence intervals for the projected variables coordinates (Appendix Table 8.7). This method indicates a real
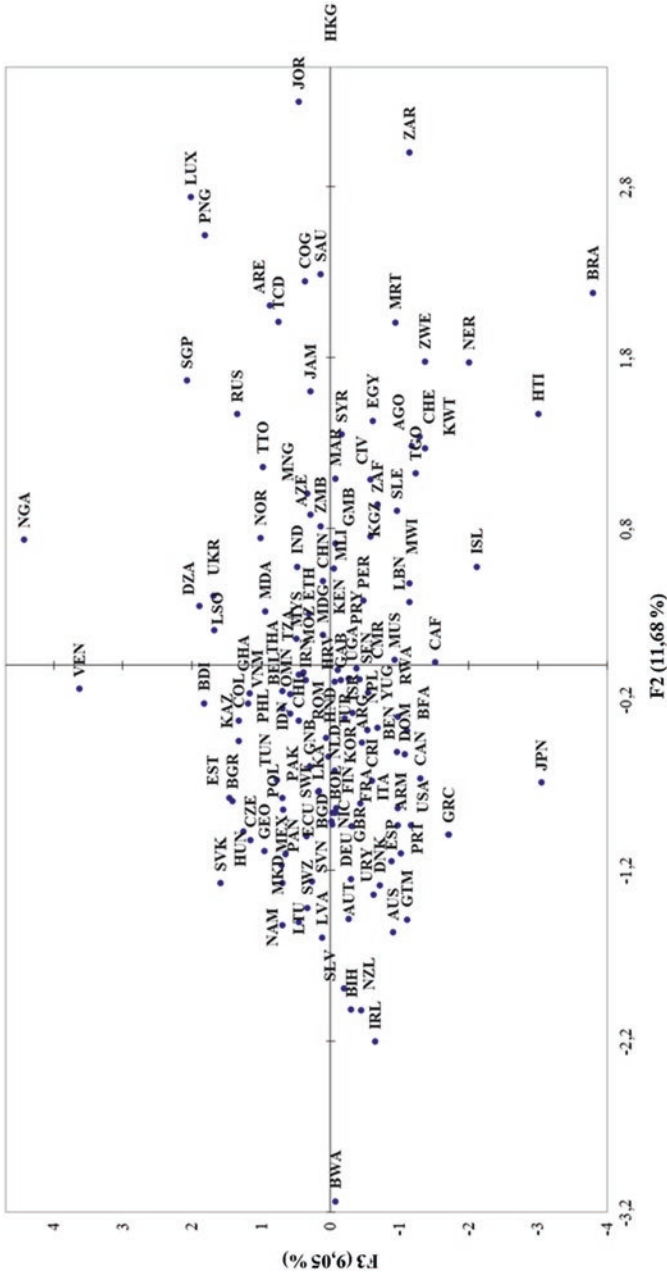
Fig. 8.4 Projection of countries on the second factorial plan. *Data source*: Author's calculations

stability of our results because only a few isolated points of replication cross two axes. We can therefore establish our comments on the basis of all the variables that were initially selected.

8.4.2 Three Models of Finance and Credit Market Governance

In order to classify 133 countries into a limited number of models, a k-means cluster analysis was implemented on the basis of the 14 variables that were used in PCA. The cluster analysis has generated three groups, augmented by the idiosyncratic one to which all the countries whose Euclidian distance from the barycentre is lower than population average have been ascribed. Cluster mean values for the classification and characterization variables are reported in Tables 8.2 and 8.3. Cluster composition is reported in Table 8.4 and Fig. 8.5 maps the models in a world atlas.

The first group describes *mature* finance and credit market systems. Their financial sector is deep, market-based and internally and exter-
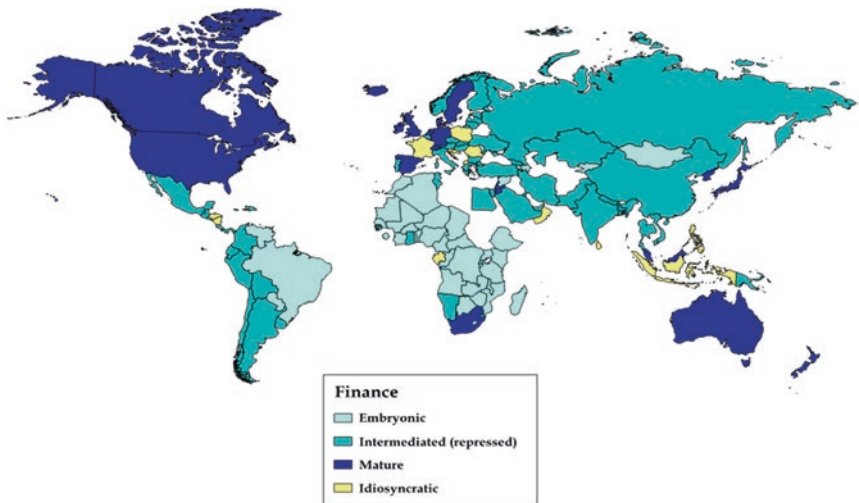
Fig. 8.5 World map of the models of finance and credit market governance

Table 8.2 Compared means of active and supplementary variables

Variables	Labels	Idiosyncratic	Embryonic	Intermediated (repressed)	Mature	All
Domestic credit	domcred	49.06	**21.90**	57.55	**160.09**	64.09
M3	M3	45.09	**30.66**	52.20	**118.85**	53.88
Market capitalization	mkt_cap	**31.38**	*21.71*	50.25	**145.35**	66.91
Financial development	devfin	73.50	**29.50**	**103.76**	*305.72*	114.01
Financial architecture	archi	0.49	**0.08**	**1.04**	**1.02**	0.68
Legal rights	leg_rights	4.46	**4.21**	**4.61**	**7.18**	4.90
Credit information	Cred_info	3.07	**1.52**	**3.88**	**5.04**	3.24
Lending interest rates	Lend-ir	**11.34**	**23.99**	**11.20**	**6.06**	14.35
Investment restrictions	Inv_rest	**6.57**	**4.37**	6.57	**7.93**	6.10
FDI	FDI	*3.47*	3.23	3.71	**17.44**	6.00
Capital controls C	Kcont_C	**10.0**	**9.69**	9.94	**10.0**	9.88
Capital controls I	Kcont_I	5.35	5.46	5.84	5.58	5.62
Interest controls	Int_Cont	9.57	**8.22**	**9.71**	**9.95**	9.27
Credit regulation	Cdt reg_C	8.41	**7.38**	8.37	**8.56**	8.18
GDP per capita		10,900	2370	12,400	30,200	12,200
HDI		*2.3*	3.6	2.3	1.22	2.5
Gini capita (current US$ 2006)		8255	1122	9874	33,611	11,066

Notes: (1) Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's. (2) The values that significantly differ from those of all other countries at 5% level (independent samples *t*-test) are in bold; those at a 10% level are in italics

Data sources: Author's calculations on data collected from World Bank, WDI, IMF Financial Access survey, Doing Business project, UNCTAD, WEF global data, WEF Global Competitiveness Report; for details, see Table 8.5

nally deregulated. This group exhibits the highest means for all classification and characterization variables. The Mature finance model has high depth and relatively even proportions of banking and market finance.

Table 8.3 Four-cluster distribution for various informative variables

	Idiosyncratic	Embryonic	Intermediated (repressed)	Mature
OECD	7.0	0.0	13	65.2
East Asia and Pacific	14.0	2.0	7.4	21.7
Europe and Central Asia	42.0	10.0	24.1	0
Latin America and the Caribbean	0.14	9.0	27.8	0
Middle East and North Africa	0.07	7.0	11.1	8.7
Sub-Saharan Africa	0.08	72.0	**9.3**[b]	4.3
South Asia	0.08	0.0	**7.4**	0
Total	100	100	**100**	100
Low HDI	0	71.4	**13**	0
Medium HDI	42.9	26.2	25.9	8.7
High HDI	35.7	**2.4**	40.7	4.3
Very high HDI	14.3	**0**	20.4	82.7
Total	100	**100**	100	95
Industrialized countries	21.4	**9.5**	27.8	65.2
Emerging countries[a]	57.1	14.3	24.1	21.7
Developing countries	31.24	21.4	24.1	13
Less developed countries	0	54.8	**5.6**	0
Total	100	100	**100**	100

[a]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

[b]The values that significantly differ from those of all other countries at a 5% level (independent samples *t*-test) are in bold

Data sources: Author's calculations; see Table 8.5 for details

Table 8.4 Classification of countries by cluster

Mature	Australia, Canada, Denmark, Finland, Germany, Hong Kong, Iceland, Ireland, **Israel**, Japan, **Jordan**, **Korea, Rep.,** Lebanon, Luxembourg, **Malaysia**, Netherlands, New Zealand, Singapore, **South Africa**, Spain, Sweden, Switzerland, United Kingdom, USA
Intermediated (repressed)	Austria, **Argentina**, Belgium, Bangladesh, **Bolivia**, Bosnia and Herzegovina, **Bulgaria**, **Chile**, **China**, **Colombia**, Costa Rica, **Czech Republic**, **Dominican Republic**, **Ecuador**, **Egypt**, El Salvador, Estonia, Finland, Georgia, Ghana, Guinea Bissau, Greece, Guatemala, Honduras, Croatia, **Hungary**, **India**, **Iran**, Italy, Jamaica, Kazakhstan, Kuwait, Latvia, Lithuania, Mauritius, **Mexico**, Namibia, Nepal, Norway, **Pakistan**, Panamá, **Peru**, Papua New Guinea, Portugal, **Russia**, **Saudi Arabia**, **Salvador**, Slovak R., Swaziland, **Thailand**, Trinidad and Tobago, **Tunisia**, **Turkey**, Ukraine, **Uruguay**, United Arab Emirates, Vietnam

Table 8.4 (continued)

Embryonic	Algeria, Angola, Armenia, Azerbaijan, Benin, **Brazil**, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo Dem. Rep., Congo, Rep., **Cote d'Ivoire**, Ethiopia, Gambia, Haiti, Kenya, Kyrgyz Republic, Lesotho, Madagascar, Malawi, Mali, Mauritania, Moldova, Mongolia, **Morocco**, Mozambique, Myanmar, Niger, **Nigeria**, **Paraguay**, Rwanda, Senegal, Sierra Leone, Syrian Arab Republic, Tanzania, Togo, Uganda, **Venezuela RB**, Zambia, **Zimbabwe**
Idiosyncratic	France, Gabon, Honduras, **Croatia**, **Indonesia**, **Sri Lanka**, Macedonia, Nicaragua, **Oman**, **Philippines**, Poland, **Romania**, **Slovenia**, Serbia

Note: Bold characters denote emerging countries, in the sense that they have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Three developed countries are archetypical of this liberal model (Canada, United Kingdom, and the USA).

A second cluster, labelled *embryonic* finance and credit market model, systematically exhibits the lowest means for all variables. In this latter category, we mainly find countries of sub-Saharan Africa. They are essentially characterized by informal financial systems and limited bank and market finance.

A third cluster, labelled *intermediated* (*repressed*) finance and credit market model, is characterized by a financial system in which investors and creditors are badly protected, banking regulation is strong and economic agents have only limited access to capital. Some of the countries in that group also suffer from financial repression, namely, a high level of public debt financed by artificially low levels of real interest rates. As shown in Table 8.2, the *intermediated* (*repressed*) *finance* model is characterized by limited financial depth, the weakness of market finance, high state banking sector regulation levels and low levels of investor and creditor protection.

Emerging countries are to be found in all groups of countries. However, they are relatively more numerous in the *intermediated* (*repressed*) model. This result suggests that relatively few emerging countries have actually converged towards market-based financial systems.

8.5   Conclusion

The financial systems studied in this chapter are essentially contrasted in terms of (1) their degree of financial depth, (2) their particular banking and market finance mix, and (3) the extent of state regulation and legal rights protection. There are four financial models: the *intermediated constrained*, *embryonic market*, *mature market* and *idiosyncratic* finance models.

Appendix

Table 8.5 Data sources

Code	Label	Definition	Source
Devfin	Financial development	The sum of 3 variables: Domcred + M3 + mkt_cap	World Bank, WDI
Domcred	Domestic credit	Domestic credit provided by banking sector through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment. (% of GDP) For some countries these claims include credit to public enterprises.	World Bank, WDI
M3	M3	Liquid liabilities (M3) as % of GDP	World Bank, WDI
mkt_cap	Market capitalization	Market capitalization of listed companies (% of GDP). Data are end of year values.	World Bank, WDI
Archi	Financial architecture	Ratio of the Market capitalization (mkt_cap) over Domestic credit (Domcred)	World Bank, WDI
Lend-ir	Lending interest rates	Lending interest rate (in %)	World Bank, WDI
Cred_info	Credit information	Index of credit market controls where a higher score indicates a more market-based mode of interest rates fixation and positive real rates.	World Bank, WDI from IMF Financial Access survey

(*continued*)

Table 8.5 (continued)

Code	Label	Definition	Source
Cdt reg_C	Credit regulation	Index of credit market regulation (ownership of banks, foreign bank competition, private sector credit, Interest rate controls): a higher score means a more competitive and open credit market.	WEF from WDI and IMF data
leg_rights	Legal rights	Index of legal rights strength measuring the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. The index ranges from 0 to 12, with higher scores indicating that these laws are better designed to expand access to credit.	World Bank, Doing Business project
FDI	FDI	FDI inflows and outflows	UNCTAD
Kcont_C	Capital market controls	Composite indicator (Inv_rest + Cap_contr) measuring the restrictions on inflows of capital. A higher score indicates less restrictions to capital inflows	WEF global data
Kcont_I	Capital controls I	Percentage of capital controls not levied as a share of the total number of capital controls listed by IMF index. A higher score means a smaller number of capital controls are used.	WEF global, IMF data
Int_Cont	Interest rate controls	Index of interest rate control where a higher score indicates a more market-based mode of interest rates fixation and positive real rates.	WEF global data
Inv-rest	Investment restrictions	Foreign ownership/investment restrictions. Subjective assessing of the scope of foreign ownership and FDI restrictions index where a higher score indicates a lower level of restriction.	WEF Global Competitiveness Report

Table 8.6 Correlation matrix

	domcred	M3	mkt_cap	devfin	archi	leg_rights	cred_info	lend_ir	inv_rest	fdi	kcont_c	kcont_i	int_cont	cdtreg_c
Domestic credit	**1**	**0.68**	**0.42**	**0.85**	0.08	**0.36**	**0.47**	**−0.30**	**0.57**	0.12	0.14	−0.08	**0.30**	**0.32**
M3	–	**1**	**0.53**	**0.73**	**0.22**	**0.29**	**0.29**	**−0.26**	**0.46**	**0.18**	0.08	0.13	**0.26**	**0.21**
Market capitalization	–	–	**1**	**0.79**	**0.49**	**0.26**	0.12	−0.15	**0.27**	**0.31**	0.10	0.10	0.08	0.17
Financial development	–	–	–	**1**	**0.40**	**0.40**	**0.39**	**−0.31**	**0.59**	**0.24**	0.14	0.05	**0.28**	**0.33**
Financial architecture	–	–	–	–	**1**	0.12	0.01	**−0.19**	**0.27**	0.12	0.01	0.13	0.09	0.09
Legal rights	–	–	–	–	–	**1**	**0.19**	**−0.20**	**0.41**	0.11	0.13	0.10	**0.24**	**0.42**
Credit information	–	–	–	–	–	–	**1**	**−0.27**	**0.48**	0.02	**0.22**	−0.01	**0.28**	**0.38**
Lending interest rate	–	–	–	–	–	–	–	**1**	**−0.34**	−0.07	−0.04	−0.02	**−0.39**	**−0.26**
Investment restrictions	–	–	–	–	–	–	–	–	**1**	0.13	0.17	0.01	**0.48**	**0.44**
FDI	–	–	–	–	–	–	–	–	–	**1**	0.07	**0.21**	0.09	0.11
Capital controls 1	–	–	–	–	–	–	–	–	–	–	**1**	−0.01	−0.11	0.07
Capital controls 2	–	–	–	–	–	–	–	–	–	–	–	**1**	0.10	−0.01
Interest rate controls	–	–	–	–	–	–	–	–	–	–	–	–	**1**	**0.38**
Credit regulation	–	–	–	–	–	–	–	–	–	–	–	–	–	**1**

Data sources: Author's calculations on data collected from World Bank, WDI, IMF Financial Access survey, Doing Business project, UNCTAD, WEF global data, WEF Global Competitiveness Report; for details, see Table 8.5 correlation coefficients significant at 5% of risk are reported in bold;

Table 8.7 Data summary statistics—averages for 13 countries (standard deviation)

Variables	All	OECD	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	Sub-Saharan Africa	South Asia
Domestic credit	64.09 (59.2)	104 (52.0)	105 (79.5)	36.43 (21.1)	43.22 (22.9)	76.60 (77.2)	26.60 (36.3)	48.03 (8.26)
M3	53.88 (41.3)	92.15 (38.2)	110.0 (68.9)	42.53 (16.2)	40.89 (13.0)	90.32 (56.4)	30.80 (24.1)	48.70 (10.6)
Market capitalization	66.91 (79.7)	97.31 (52.1)	135 (159)	23.85 (16.1)	42.67 (43.8)	115 (100)	34.44 (62.6)	30.51 (25.3)
Financial development	114 (118)	238 (88.8)	217 (189)	60.18 (31.0)	75.73 (54.0)	183 (114)	40.12 (74.5)	82.92 (34.1)
Financial architecture	0.68 (1.16)	0.94 (1.24)	1.28 (1.52)	0.58 (0.71)	0.81 (1.15)	1.44 (1.52)	0.10 (0.91)	0.68 (0.45)
Legal rights	4.90 (1.92)	6.45 (1.89)	5.75 (2.34)	5.63 (1.64)	3.90 (1.22)	3.5 (1.16)	4.32 (1.70)	4.60 (1.51)
Creditor Information	3.24 (2.04)	4.95 (0.78)	3.83 (1.74)	3.36 (1.83)	4.71 (1.90)	2.41 (1.50)	1.45 (1.55)	2.8 (0.83)
Lending interest rate	14.35 (11.4)	5.39 (2.61)	8.99 (5.72)	12.08 (6.28)	17.44 (11.2)	9.73 (3.26)	22.63 (15.2)	9.96 (3.11)
Investment restrictions	6.10 (1.77)	8.01 (0.57)	6.82 (1.60)	6.19 (1.70)	5.85 (1.21)	6.47 (0.72)	4.62 (1.67)	5.84 (0.91)
FDI	6.00 (2.67)	15.43 (6.25)	5.35 (6.75)	5.88 (4.80)	3.65 (2.76)	4.25 (4.67)	2.74 (3.73)	1.06 (0.71)
Capital controls 1	9.88 (0.50)	10 (0.01)	10 (0.02)	10 (0.22)	9.76 (0.80)	9.58 (0.66)	9.85 (0.61)	9.81 (0.42)
Capital controls 2	5.62 (2.31)	4.53 (1.73)	8.41 (2.55)	6.08 (2.09)	5.01 (1.86)	6.14 (1.48)	5.43 (2.44)	4.83 (2.06)
Interest rate controls	9.24 (1.24)	9.86 (0.34)	9.75 (0.62)	9.43 (1.03)	9.04 (1.49)	9.5 (0.97)	8.55 (1.56)	10 (1.30)

(continued)

Table 8.7 (continued)

Variables	All	OECD	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	Sub-Saharan Africa	South Asia
Credit regulation	8.18	8.93	8.52	8.74	8.07	7.09	7.70	7.32
	(1.19)	(0.68)	(0.83)	(0.83)	(1.03)	(1.56)	(1.30)	(0.90)
N	131	23	12	22	21	12	36	5

Variables	All	Low HDI	Middle HDI	High HDI	Very high HDI
Domestic credit	63.14	20.90	53.61	53.76	127
	(58.5)	(18.0)	(41.7)	(36.0)	(65.3)
M3	52.38	28.70	54.46	50.34	96.64
	(40.2)	(14.3)	(34.7)	(28.8)	(57.1)
Market capitalization	67.37	25.89	51.73	53.22	107
	(80.0)	(29.0)	(73.9)	(54.1)	(100)
Financial development	113.0	30.15	89.17	106.0	234
	(119)	(34.4)	(99.2)	(73.5)	(133)
Financial architecture	0.69	0.34	0.28	1.16	1.07
	(1.167)	(0.84)	(1.03)	(1.26)	(1.27)
Legal rights	4.92	4.2432	4.21	4.85	6.54
	(1.93)	(1.70)	(1.34)	(1.77)	(1.94)
Creditor information	3.24	1.24	3.42	4	4.77
	(2.05)	(1.25)	(1.73)	(2.09)	(0.99)
Lending interest rates	14.46	22.94	14.55	13.58	5.64
	(11.5)	(15.6)	(6.18)	(10.6)	(2.36)
Investment restrictions	6.10	4.43	5.787	6.39	8.00
	(1.78)	(1.62)	(1.19)	(1.14)	(0.61)
FDI	5.95	2.52	3.62	4.33	14.19
	(2.69)	(3.72)	(3.45)	(2.47)	(5.47)

Capital controls C	9.88	9.82	9.73	9.99	10
	(0.50)	(0.62)	(0.73)	(0.03)	(0.06)
Capital controls I	5.62	5.26	6.3636	5.43	5.42
	(2.32)	(2.66)	(2.12)	(1.88)	(2.50)
Interest controls	9.26	8.44	9.45	9.32	9.90
	(1.25)	(1.67)	(0.93)	(1.15)	(0.29)
Credit regulation	8.18	7.46	7.87	8.52	8.95
	(1.19)	(1.18)	(1.28)	(0.98)	(0.64)
N	128	35	32	28	32

Data sources: Author's calculations on data collected from World Bank, WDI, IMF Financial Access survey, Doing Business project, UNCTAD, WEF global data, WEF Global Competitiveness Report; for details, see Table 8.5

Table 8.8 Data summary statistics—averages for 131 countries (standard deviation)

Variables	All	Industrialized countries	Emerging countries[a]	Developing countries	Less developed countries
Domestic credit	64.093 (59.2)	109 (76.2)	18.20 (13.0)	49.33 (44.0)	18.20 (13.0)
M3	53.88 (43.1)	63.64 (48.5)	27.17 (11.3)	62.64 (59.2)	27.17 (11.3)
Market capitalization	66.91 (7.97)	71.11 (5.80)	9.13 (4.83)	90.29 (1.35)	9.13 (4.83)
Financial development	114 (118)	175 (126)	19.18 (13.9)	110 (143)	19.18 (13.9)
Financial architecture	0.68 (1.16)	0.70 (1.04)	0.04 (0.14)	0.81 (1.83)	0.04 (0.14)
Legal rights	4.90 (1.92)	6.31 (1.76)	3.96 (1.61)	5.07 (1.84)	3.96 (1.61)
Creditor information	3.24 (2.04)	4.37 (1.47)	1.15 (1.00)	3.10 (2.06)	1.15 (1.00)
Lending interest rates	14.35 (1.14)	9.31 (6.93)	23.28 (1.40)	14.24 (6.17)	23.28 (1.40)
Investment restrictions	6.10 (1.77)	7.19 (1.66)	4.180 (1.65)	6.12 (1.55)	4.180 (1.65)
FDI	6.00 (2.67)	11.99 (4.92)	2.59 (3.65)	4.95 (5.57)	2.59 (3.65)
Capital controls C	9.88 (0.50)	10.0 (0.10)	9.89 (0.51)	9.90 (0.20)	9.89 (0.51)
Capital controls I	5.62 (2.31)	493 (2.14)	4.75 (2.54)	6.42 (2.43)	4.75 (2.54)
Interest controls	9.27 (1.24)	9.62 (0.86)	8.32 (1.79)	9.19 (0.84)	8.32 (1.79)
Credit regulation	8.18 (1.19)	8.9654 (0.67)	7.43 (1.26)	8.07 (1.34)	7.43 (1.26)
N	131	37	41	28	26

[a]In this table, emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations on data collected from World Bank, WDI, IMF Financial Access survey, Doing Business project, UNCTAD, WEF global data, WEF Global Competitiveness Report; for details, see Table 8.5

Table 8.9 Elementary statistics about supplementary variables

Supplementary variables	Absolute number	% Total
LDC	28	21.5
Emerging countries	42	31.58
Developed countries	37	27.82
LDC	26	19.55
All	*133*	*100*
High HDI	28	21.5
Middle HDI	33	24.81
Low HDI	37	27.82
Very Low HDI	32	24.06
All	*133*	*100*
East Asia and Pacific	12	9.02
Europe and Central Asia	23	17.29
Latin America and the Caribbean	21	15.79
Middle East and North Africa	12	9.02
OECD	23	17.23
South Asia	5	3.76
Sub-Saharan Africa	37	27.82
All	*133*	*100*

References

Alesina, A., A. Devleeschauwer, W. Easterly, S. Kurlat, and R. Wacziarg. 2003. Fractionalization. *Journal of Economic Growth* 8 (2): 155–194.

Allen, F., E. Carletti, J. Qian, and P. Valenzuela. 2013a. Financial Intermediation, Markets, and Alternative Financial Sectors. In *Handbook of Economics of Finance*, ed. G. Constantinides, M. Harris, and R. Stulz. Amsterdam: North-Holland.

Allen, F., M. Qian, and J. Xie. 2013b. *Understanding Informal Financing*. Mimeo.

Ayyagari, M., A. Demirguc-Kunt, and M. Maksimovic. 1999. *How Important Are the Financing Constraints? The Role of Finance in the Business Environment*. World Bank, Mimeo.

Bagehot, W. 1873. *Lombard Street*. Homewood, IL: Richard D. Irwin.

Beck, T., A. Demirguc-Kunt, L. Laeven and R. Levine. 2005. Finance, Firm Size, and Growth. *Journal of Money, Credit and Banking* 40 (7): 1379-1405. Published by Blackwell Publishing.

Beck, T., R. Levine, and N. Loayza. 2000. Finance and the Sources of Growth. *Journal of Financial Economics* 58: 261–300.

Boyd, John H., Ross Levine, and Bruce D. Smith. 2001. The Impact of Inflation on Financial Market Performance. *Journal of Monetary Economics* 47: 221–248.

Demirgüç-Kunt A. 2007. Finance and Economic Development: Evidence, Indicators and Policy Choices. Mimeo. Washington, DC: The World Bank.

Detragiache, E., G. Poonam, and T. Tressel. 2005. Finance in Lower-Income Countries: An Empirical Exploration. *IMF Working Paper* WP/05/167. Washington, DC: The International Monetary Fund.

Easterly, W., and R. Levine. 2003. Tropics, Germs and Crops: The Role of Endowments in Economic Development. *Journal of Monetary Economics* 50 (1): 3–39.

Fafchamps, M. 2004. *Market Institutions in Sub-Saharan Africa: Theory and Evidence*. Cambridge, MA: The MIT Press.

Goldsmith, R.W. 1969. *Financial Structure and Development*. New Haven, CT: Yale University Press.

Greenwood, J., and J. Jovanovic. 1990. Financial Development, Growth and the Distribution of Income. *Journal of Political Economy* 98 (5): 1076–1107.

Greenwood, J., and B. Smith. 1997. Financial Markets in Development and the Development of Financial Markets. *Journal of Economic Dynamics and Control* 21 (1): 145–181.

Haber, S.H. 2004. *Political Competition and Economic Growth: Lessons from the Political Economy of Bank Regulation in the United States and Mexico*. Stanford University, Mimeo.

———. 2008. Political Institutions and Financial Development: Evidence from the Political Economy of Bank Regulation in Mexico and the United States. In *Political Institutions and Financial Development*, ed. S.H. Haber, D.C. North, and B.R. Weingast. Stanford: Stanford University Press.

Haber, S.H., D.C. North, and B.R. Weingast. 2008. *Political Institutions and Financial Development*. Stanford: Stanford University Press.

King R.G., and R. Levine. 1993. Finance and Growth: Schumpeter Might be Right. *The Quarterly Journal of Economics* 108 (3), August: 717–737.

Korajczyk, R.A. 1996. A Measure of Stock Market Integration for Developed and Emerging Markets. *World Bank Economic Review* 10 (2): 267–289.

Lamoreaux, N.R., and J.-L. Rosenthal. 2004. Legal Regime and Business's Organizational Choice: A Comparison of France and the United States

During the Era of Industrialization. *NBER Working Paper* No. 10288. Washington, DC: The National Bureau of Economic Research.

La Porta, R., F. Lòpez-de-Silanes, A. Shleifer, and R.W. Vishny. 1998. Law and Finance. *Journal of Political Economy* 106: 1113–1155.

Levine, R. 1996. Financial Development and Economic Growth: Views and Agenda. *Journal of Economics Literature* 35 (2): 688–726.

———. 2002. Bank-based or Market-based Financial Systems: Which is Better? *Journal of Financial Intermediation* 11 (4): 398–428.

Levine, R., and S. Zervos. 1996. Stock Markets, Banks and Economic Growth. *World Bank Policy Research Working Paper* No. 1582.

Lucas, R.E. 1988. On the Mechanics of Economic Development. *Journal of Monetary Economics* 22 (1): 3–42.

McKinnon, R. 1973. *Money and Capital in Economic Development*. Washington, DC: The Brooking Institution.

Rajan, R.C., and L. Zingales. 1998. Financial Dependence and Growth. *The American Economic Review* 88: 559–586.

Rajan, R., and L. Zingales. 2003. *Saving Capitalism from Capitalism*. New York: Ramdom House.

Robinson, J. 1952. The Generalization of the General Theory. In *The Rate of Interest and Other Essays*, ed. J. Robinson. London: Macmillan.

Schumpeter, J.A. 1911. *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.

Stulz, R.M., and R. Williamson. 2003. Culture, Openess and Finance. *Journal of Financial Economics* 70 (3): 313–349.

9

Agriculture

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9.1   Introduction

Economists have long been aware of the strategic role of agriculture for development (Lewis 1954; Johnston and Mellor 1961; Rostow 1962; Bairoch 1963). Nevertheless, as early as the eighteenth century, the idea began to form in people's minds that modern growth was essentially industrial and urban. In particular, after World War II and decolonization, the governments of developing countries often favoured urban areas and the industrial sector. In the past decade, these urban biased policies

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have, however, been called into question by the maintenance of high poverty ratios and the resurgence of food insecurity.[1]

Today, roughly one half of the world's population lives in rural areas, and it is estimated that three-quarters of the people who live there are poor (World Bank 2008). Equally, it should not be forgotten that agriculture is destined to satisfy food needs and that it accounts for a significant proportion of rural income. For all these reasons, agriculture is a key factor for eradicating poverty and undernourishment, the objective fixed by the first Millennium Development Goal. Agriculture should, therefore, be at the very centre of development programmes and there is growing consensus about the strategic role of agriculture, notably focused in the World Bank's 2008 development report.

What is more, Byerlee et al. (2009) argue that a new paradigm is needed to understand the contemporary links between agriculture and development. The standard structural transformation paradigm is not sufficient to establish agriculture's role in five central pillars of the development agenda (triggering economic growth, reducing poverty, narrowing income and gender disparities, providing food security and delivering environmental services). The "agriculture for development" paradigm rejects the well-established idea of agriculture as the handmaiden of industrialization, and underlines the multiple roles of agriculture per se.

Nevertheless, agricultural priorities vary greatly across countries, with each nation adopting one specific agricultural model according to its agroclimatic, cultural, socioeconomic and political context. So, we need greater elements of knowledge about agriculture models at both the outcomes and institutional levels. At the microeconomic level, the Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), the Food and Agriculture Organization (FAO) and the International Fund for Agricultural Development (IFAD) created a joint initiative in 2009, the World Agriculture Watch, to monitor structural changes in agriculture and to inform policy dialogue, focusing on farmer's organizations,

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[1] At the beginning of the new millennium, the number of undernourished people started to increase after decades of continuous decrease. More precisely, the FAO's 2006 Hunger Report estimates that, in 2004, 852 million people in the world were suffering from hunger, compared with 826 billion in 2001. The 2008 report confirmed this trend, and the 2007–2008 "hunger riots" were particularly symptomatic of this new period of food insecurity.

a crucial dimension of agricultural sector coordination. Their framework is, however, poorly informed about such macroeconomic characteristics as the types of agriculture involved, as well as about institutional outcomes regarding land rights. In 2008, the World Bank proposed its own agricultural models classification, taking into account agriculture's share in GDP, the proportion of the rural population and the poverty ratio. However, this classification neglects the complex relations between agents, which eventually lead, through institutions, to a specific agricultural development model that assumes a crucial part in developing countries' economic systems.

The present chapter explicitly takes into account the institutional dimension, which is necessary to understand agricultural systems. We use an original and broad database to construct a multidimensional classification for our set of 140 countries that enables the identification of distinct agricultural models, not only in terms of performance, but also in terms of institutions. More precisely, we focus on property rights, recognized as a central institution influencing technological improvements and investment decisions in agriculture (De Soto 2000; Deininger 2003; Goldstein and Udry 2008; Grimm and Klasen 2009; Macours et al. 2010). With that aim, a review of the literature dealing with the role of agriculture and property rights in development (first section) precedes our empirical study identifying different varieties of agricultural sector coordination (second section).

9.2 Agricultural Models for Development: A Review

Our literature review has identified three main dimensions in which agricultural regulation possibly impacts economic development and the shape of economic systems: (i) structural change, (ii) primary specialization and food security; and (iii) land property rights.

The theory of structural change emphasizes the determinant role of agriculture in development, because the agricultural and industrial sectors are interdependent at every stage of development (Szirmai 2005). During the development process, agriculture is central, and the state

plays a crucial role in its development by direct means, such as road construction, agricultural investment as well as by indirect means, including taxation and price incentives or subsidy provision. External effects and market failure[2] justify the role of the state in agrarian investments (Binswanger and Deininger 1997; Bezemer and Hedeay 2008). Nevertheless, public policies can lead to unbalanced development. One particular form of unbalanced development is the consequence of disproportionate transfers from agriculture to industry. This mechanism, known as urban bias (Myrdal 1958; Lipton 1977), is defined by Bezemer and Hedeay (2008) as a combination of price and the international trade system, with public expenditure and subsidies favouring industry and urban areas to the detriment of rural ones. This kind of unbalanced development can help explain differences in the development levels of the emergent and less developed countries.

Primary exportations are a way to reach higher economic wealth and structural change, but they can also have a negative impact on food security. An extensive literature has emphasized that excessive emphasis on exporting may prove risky, especially in the context of worsening terms of trade, primary goods price volatility or demographic increase. Demographic growth increases national food needs, thereby reinforcing the competition between lands dedicated to food production and those dedicated to cash production. All of these elements contribute to explaining increased food dependence in developing economies, and are key elements in current food security issues.

At a more microeconomic level, peasant economy studies clearly help to identify key forces of agricultural system transformation. After Chayanov's study of Russian small-farm agriculture (Chayanov 1966), the literature on the peasant economy has described the smallholder peasant economy as being embedded in rural society: land rights are not systematically individual, and a part of the production is dedicated to the satisfaction of social obligations. Similar structures can be found,

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[2] Market failures that are determinant for agricultural development are information asymmetry, transaction costs and labour market distortions, the extreme volatility and covariance of incomes due to the absence of agricultural insurance markets, the distortion of land markets, and the indivisibility of many rural investments.

nowadays, in rural areas of developing countries, such as in China, for example. Two contrasting approaches of the peasant economy actually coexist. The first one emphasizes their rather good adaptation to the specific constraints they face (Chayanov 1966; Schultz 1964; Berry and Cline 1979; Hill 1986; Boserup 1990; Dufumier 2007), whereas the second one places more emphasis on their low productive capacities, with demographic pressure putting even more stress on their underlying bottlenecks (World Bank 2008; UNCTAD 2010). Smallholders are, in fact, risk-averse because they live so close to subsistence level that the slightest income loss leads to unbearable situations. In such a context, security is valued more than innovativeness (Scott 1976), thereby creating resistance to innovation amongst populations of vulnerable smallholders. Popkin (1979), however, emphasizes that peasants are actually engaged in the pursuit of their own interests, and are not always reluctant to invest in order to improve their welfare. They are ready to take risks, if potential losses are not excessive. In what concerns the perception of risks, rural societies, in developing countries, are highly heterogeneous and hierarchically socially structured (Ellis 1988). Consequently, any public policy or institutional reform that can reduce small-farm holders' exposure to risk and improve risk management might facilitate the diffusion of innovation and productivity increase.

Recent literature has emphasized the role of institutions and, more particularly, of property rights, in limiting risks in peasant economies. Macours et al. (2010) show that land rights' insecurity can have large efficiency costs, reducing investment and access to credit. The reinforcement of property rights' security is, therefore, seen as a vector of rural development. For Grimm and Klasen (2009), demographic pressure induces the need for more secure forms of property rights than "traditional" ones. In response, the emergence of new systems of property rights influences technological improvements and investment decisions in agriculture.

The next section proposes an original analysis of agricultural models taking into account not only agricultural systems' performance differentials but also, also, such crucial institutional issues as the policy- and institution-induced urban bias and land rights' securitization.

9.3   Assessing the Institutions of Agriculture Governance

Several variables have been selected to help us to characterize the diversity of agricultural systems. Our dataset comes from two main sources: the World Bank 2008 World Development Indicators, and the CEPII 2009 Institutional Profiles Database (IPD).[3]

The first set of variables is linked to the characterization of agricultural public policies and transfer policies. Special attention is given to the weight of agriculture in the national economy and to the existence of an urban bias. Concerning the share of agriculture in the national economy, two variables have been selected: the share of agricultural GDP in national GDP, and the percentage of agricultural workers in the active population. In line with Bezemer and Hedeay (2008), urban bias is measured by the difference between urban and rural areas of access to safe water.

The second set of variables deals with the multiple purposes of agricultural production (food crops vs. cash crops). We retain the share of agriculture in exportation, which is expected to be higher in less developed, more agriculture-dependent countries. On the contrary, the agro-industrial share of GDP may reflect greater integration between national industry and national agriculture and, thus, a lesser dependence on agriculture. Food security is measured by three variables: the malnutrition prevalence height for age—measured by the percentage of children under five, the malnutrition prevalence weight for age—the percentage of children under five, and the undernourishment and Global Hunger Index.[4]

Types of farm organization are described by three indicators: the use of fertilizer per hectare, the number of tractors per hectare, and the productivity of a worker in agriculture (measured by the GDP per worker in agriculture). Whereas these three variables are rather good at describing modern agriculture, they need to be complemented in order to depict

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[3] The sources are presented in Table 9.6 in the Appendix. The CEPII 2009 IPD is available on: http://www.cepii.fr/francgraph/bdd/instit_form/login2009.asp

[4] The global hunger index is calculated on the basis of: (i) the proportion of undernourished people in the total population (in percentage); (ii) the prevalence of underweight in children under five (in percentage); (iii) the under-five mortality rate (per 1000 live births). See Wiesmann et al. (2006) for a more detailed presentation.

such peasant economy specificities as the small size of land assets, for which the land Gini, measuring the inequalities of land distribution, provides a good measurement.

As for strictly institutional aspects, these essentially focus on property rights. The six selected variables are provided by the CEPII 2009 IPD. They respectively characterize: (i) the diversity of land tenure rights systems (traditional, customary, collective, religious, "modern" rights, etc.); (ii) government recognition of this diversity; (iii) the significance of public land tenure policies,[5] (iv) the security of land tenure rights; (v) land pressure, measured by the strength of the demand for land; and (vi) the "Land tenure and large investors" variable measures the extent of large investment (national or international) in land property.

For all these variables, the reference year is 2005, with missing values, whenever possible, being completed by the nearest year for which a value is available. We have cut down the initial sample of 154 countries by eliminating those for which less than 50% of variables were known,[6] and then controlled for the representativeness of the remaining sample.[7] The PCA has thus been conducted for a sample of 145 countries for the year 2005. In the entire analysis, the role of the remaining missing data has been cancelled out by using the corresponding mean values. After sample adjustment, only 12 active variables have been retained for the empirical analysis: the percentage of agricultural workers in the active population, the share of agricultural GDP in national GDP, the urban bias indicator, the share of agriculture in exportation, the share of agro-industry in GDP, the number of tractors per hectare, the use of fertilizer per hectare, the productivity of a worker in agriculture, the diversity of land tenure right systems, the government recognition of the diversity of land tenure right systems, the significance of public land tenure policies, and the security of land tenure

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[5] This variable is a synthesis of three elements: (i) the public arrangements available for formalisation/registration of land rights in urban, suburban and rural areas; (ii) the policy fostering access to land for certain disadvantaged groups (minorities, natives, indigenous peoples, immigrants, etc.); (iii) eviction operations over the last three years (excluding conflicts, civil wars, etc.).

[6] Afghanistan, Bosnia and Herzegovina, Chad, Cuba, Ireland, Liberia, Libya, Somalia and Virgin Islands have thus been excluded from the analysis. Moreover, Iceland and Singapore have also been excluded because they are extreme outliers.

[7] Note that complete information is available for 45.5% of the individuals and that 23.1% of them only suffer one single missing variable.

rights.[8] The data summary statistics and simple correlations between considered variables are shown in Tables 9.6 and 9.7 in the Appendix.

9.4 The Diversity of Agriculture Governance Models

9.4.1 Principal Component Analysis

We proceed to a Principal component analysis (PCA) of the 12 selected active variables. Three categorical variables, describing the geographical localization, HDI level and socioeconomic situation of each country, have been added as supplementary variables in the analysis.[9] Twenty-five bootstrap replications of the initial sample have been implemented in order to back up PCA results by providing confidence intervals for the coordinates of the projected active variables. The results of the bootstrap replications show that the initial position of all the variables that contribute to the orientation of the first and second components is reliable. However, the urban bias variable seems to have a doubtful position and should, therefore, be interpreted carefully on the basis of the second axis. Table 9.1 shows PCA eigenvalues. Figure 9.1 displays the projections of the 12 active variables on the first factorial plan (F_1, F_2), and Fig. 9.2 shows the projections of active individuals on the same plan.

Data sources: Author's calculations on data collected from World Bank, WDI, CEPII, FAO, National census and IFPRI; for details, see Table 9.6

The first principal component accounts for a fairly large part of the total variance (33.97%). As for the second and third components, they respectively represent 20.56% and 8.17% of the total sample heterogeneity. The third component, however, does not really enrich the information

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[8] Six variables have been excluded from the PCA because they are misrepresented on the first two components, and because they do not significantly contribute to the axis orientation. These variables are the malnutrition prevalence height for age, the malnutrition prevalence weight for age, the undernourishment index, the Global Hunger Index, the land Gini, the demand for land, and the "land tenure and large investors" variable. Nevertheless, these six variables will be reintroduced in the second step of the analysis (cluster analysis) as supplementary variables in order to refine the characterization of the different country groups.

[9] Note that these variables do not affect the construction of principal factors.

Table 9.1 PCA Eigenvalues

	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9
Eigenvalues	4.08	2.47	0.98	0.92	0.68	0.64	0.59	0.42	0.39
% of variance	33.97	20.56	8.17	7.65	5.68	5.30	4.89	3.47	3.29
Cumulative %	33.97	54.52	62.70	70.35	76.02	81.32	86.21	89.68	92.97
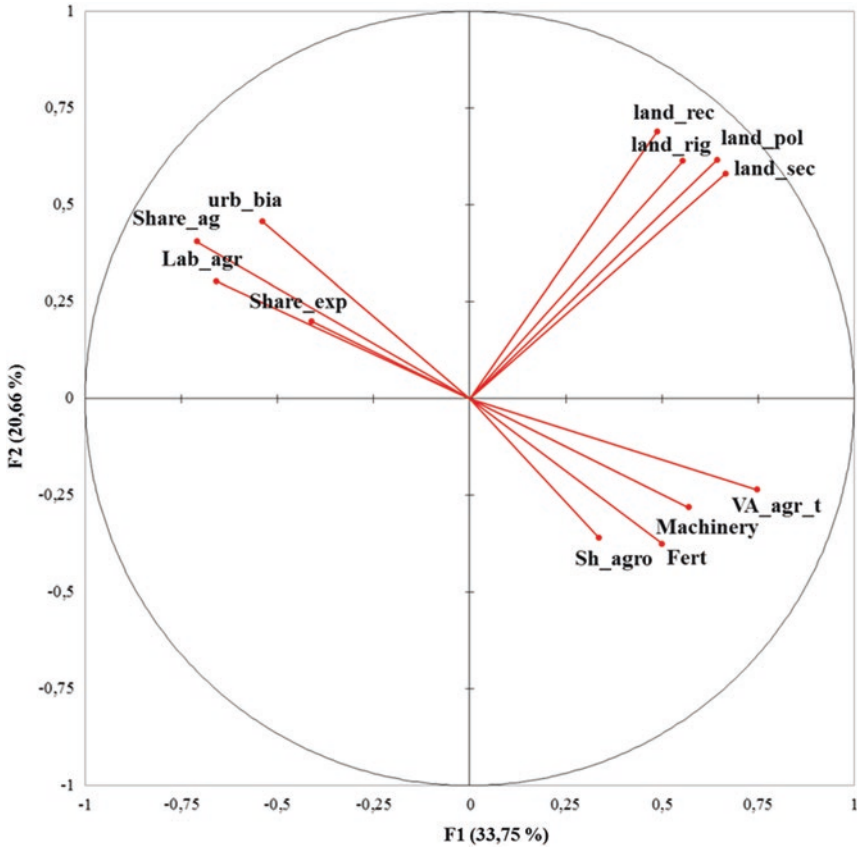
Fig. 9.1 Projection of the active variables on the first factorial plan. *Data source*: Author's calculations; see Table 9.6 for details

Fig. 9.2 Projection of the active individuals on the first factorial plan. *Data source*: Author's calculations

provided by the first two components. Therefore, we have chosen to retain the first and second factorial axes (F1 and F2), which provide a satisfactory representation of the data set (approximately 55% of the total variance). Table 9.2 shows active and supplementary variable correlations with each factor.

The correlation circle (Fig. 9.1) suggests that all the active variables are correctly represented. This raises three comments. First, the group of variables characterizing agricultural weight in the economy and the existence of an urban bias are negatively correlated with agricultural productivity variables. Second, the four institutional variables are positively correlated with each other. Third, since institutional variables are orthogonal to the two others groups of variables they, therefore, provide additional and complementary information to the traditionally used dimensions.

First principal component F_1 analysis reveals a clear-cut opposition between two types of agriculture. On the left-hand side, a first model of agriculture combines a high share of agriculture in the national economy,

Table 9.2 Active/supplementary variable-axes correlations and actives variable-axis correlations[a]

	PC1	PC2
Agricultural workers in active population	**−0.661**	0.300
Agriculture share in GDP	**−0.704**	0.413
Productivity of agricultural workers (value-added)	**0.743**	−0.242
Agriculture share in exports	−0.412	0.200
Urban bias	**−0.543**	**0.451**
Fertilizer use	0.506	−0.372
Machinery use	**0.572**	−0.281
Agro-industry share in GDP	0.333	−0.366
Diversity of land tenure right systems	0.562	**0.612**
Government recognition of the diversity of land tenure right systems	0.494	**0.687**
Significance of public land tenure policies	**0.649**	**0.613**
Security of land tenure rights	**0.672**	**0.576**

[a]For supplementary variables, significant correlations at a 5% level are shown in bold characters

Note: Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations on data collected from World Bank, WDI, CEPII, FAO, National census and IFPRI; for details, see Table 9.6

both in terms of value added and labour force, and low productivity. On the right-hand side along the first component, a second model is characterized by a lower agricultural share in the economy and more productive organizations, as well as more secure and diversified land tenure systems. We can, therefore, draw, from this first axis, a distinction between those economies that are relatively dependent on agriculture, and those that rely on a more productive and efficient agriculture. In fact, F_1 could perfectly be interpreted as the structural change axis. Among the individuals that contribute most to the orientation of F_1, we can notice a clear opposition between two groups of countries.

Most industrialized and OECD countries with capital-intensive, more productive, and/or better-institutionalized agricultural systems (France, Belgium, Luxembourg, United Kingdom, USA, New Zealand, the Netherlands, Denmark, Italy, Spain, Sweden, Switzerland, Japan, Australia, Canada, Germany…) cluster on the right side of the graph. As explained above, the second principal component, F_2, provides additional information about land property rights. It draws an opposition between countries showing high dependence on agriculture and a strong urban bias (in the top left-hand corner) and countries where agriculture plays a significant role in the economy, but where urban bias is minor and the agricultural system is weakly institutionalized (in the bottom left-hand corner). Equally, F2 makes a distinction between countries featuring both a productive agriculture and strong regulations (in the top right-hand corner), and countries with a productive but weakly institutionalized agricultural system (in the bottom right-hand corner we find Hong Kong, Finland and Norway). So, the scale of structural change is complemented by institutional aspects to explain the differences between countries.

These two kinds of variables are introduced in a classification analysis in order to systematically identify country clusters.

9.4.2 The Cluster Analysis: Three Models of Agriculture Governance

Our sample of countries is classified according to the dominant structural and institutional traits of their agricultural governance model. Different types of agricultural systems can therefore be identified. A brief presen-

tation of our methodological choices precedes the presentation of the results.

Our classification analysis implements a mixed method adapted to establish homogeneous and meaningful clusters of countries. The 12 active variables used for the PCA are introduced in the mixed classification method, which combines: (i) a hierarchical cluster analysis that provides arguments to choose the number of clusters, and (ii) a consolidation of the cluster composition by using k-means-like iterations (maximizing inter-cluster variance while minimizing intra-cluster variance). In order to reinforce the coherence of the groups, a preliminary step consists in isolating, in a particular group, the countries situated at the centre of the scatter plot.[10]

Due to their central position, the assignment of these countries to one of the k-means groups would not be very consistent. Moreover, their marginal position within these groups could thin them down. The interpretation of the types of agricultural systems falling into that group is not easy, however. We would say that they differ from the types represented by the other clusters (established by the classification) although potentially being, simultaneously, different from one other. That is why this group has been called the *idiosyncratic* model.

In addition to this group, three clusters have emerged from the classification. Table 9.3 presents the mean value, by country group, of a selection of variables, with the active classification and additional characterization variables being respectively reported in the upper and lower panels. Table 9.4 shows the distribution of each country's agricultural type according to its geographic localization and its level of economic and social development. Table 9.5 reports lists of countries by cluster, and Fig. 9.3 maps the models in a world atlas.

Countries that belong to the *traditional agriculture* model are characterized by a great dependence on agriculture and weak agricultural productivity; for these countries, structural change did not happen significantly. That is why the cluster has been named as a *traditional agriculture* type. Legal formalization of land tenure rights is weak, except for the

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[10] The closest countries, in terms of Euclidian distance to the barycentre of the scatter plot, have been *a priori* affected to this group.

Table 9.3 Compared means of active and supplementary variables by cluster

	Traditional	Dualistic	Modern	Idiosyncratic	All
Agriculture employment (% of total)	**48.52**[a] (25.06)	**34.10** (22.31)	**6.65** (4.93)	24.13 (15.19)	25.45 (24.00)
Agriculture value added (% of GDP)	**27** (14)	15 (11)	**4** (3)	13 **(8)**	14.5 (13.25)
Agriculture V.A. per worker (US$)	**942.26** (1088.28)	**3466.13** (7881.15)	**20,402.88** (15,539.63)	**2798.08** (3419.38)	8008.7 (13,446.69)
Agriculture exportation share (%)	**11.60** (16.74)	4.00 (4.71)	2.03 (2.19)	**3.52** (3.25)	5.26 (9.72)
Urban bias	**34.95** (16.32)	16.30 (14.51)	**4.10** (8.6)	18.38 (11.94)	19.02 (17.56)
Fertilizer consumption	**369.52** (617.34)	1144.18 (1468.55)	**2005.96** (1508.59)	**661.06** (816)	1398.4 (3111.93)
Machinery	**46.93** (65.04)	**168.63** (283.76)	**734.96** (934.04)	292.36 (389.94)	424.58 (1396.67)
Agro-industry (% of GDP)	**0.53** (0.63)	1.24 (1.12)	**2.68** (2.86)	**0.96** (0.7)	2.14 (6.19)
Rights diversity of land tenure systems	3.17 (0.83)	**2.15** (0.69)	**3.58** (0.70)	3.03 (0.5)	2.98 (0.92)
Rights recognition	**3.67** (0.52)	**2.07** (0.81)	**3.69** (0.60)	3.25 (0.47)	3.14 (0.97)
Land tenure policies	3.15 (0.71)	**2.20** (0.64)	**3.85** (0.32)	2.90 (0.46)	3.05 (0.86)
Rights security	2.69 (0.77)	**1.88** (0.51)	**3.41** (0.59)	2.55 (0.38)	2.65 (0.85)

GDP per capita (constant 2000 $ PPP)	**2771.81** (3047.82)	**6543.34** (8892.54)	**23,903.72** (11,572.95)	**7026.98** (6101.22)	**11,001** (12,790.66)
HDI	**0.46** (0.15)	**0.56** (0.16)	**0.81** (0.07)	0.61 (0.15)	0.61 (0.19)
Gini index	41.43 (8.95)	41.20 (9.38)	**37.20** (8.07)	42.36 (9.21)	40.45 (8.98)
Gini index of land concentration	0.57 (0.15)	0.53 (0.18)	**0.65** (0.13)	0.67 (0.16)	0.60 (0.16)
Global hunger index	**19.71** (8.94)	**13.08** (10.07)	4.68 (2.87)	15.67 (13.60)	14.71 (10.78)
Malnutrition prevalence weight for age	**22.91** (12.48)	20.09 (12.93)	**5.06** (4.41)	**12.96** (12.20)	17.23 (13.18)
Land tenure and large investors	2.55 (0.79)	2.77 (0.64)	2.85 (0.70)	2.81 (0.72)	2.72 (0.72)
Demand for land	2.29 (0.75)	2.39 (0.84)	2.56 (0.85)	**2.75** (0.51)	2.46 (0.80)

[a]The variable means that are significantly different from that computed for all other countries at the 5% confidence level are reported in bold characters

Data sources: Author's calculations on data collected from World Bank, WDI, CEPII, FAO, National census and IFPRI; for details, see Table 9.6

Table 9.4 Geographic and economic distribution of clusters

	Dualistic	Traditional	Modern	Idiosyncratic	All
OECD	2.78	0.00	52.78	0.00	15.38
East Asia and Pacific	13.89	15.79	5.56	11.11	11.89
Eastern Europe and Central Asia	8.33	13.16	16.67	44.44	18.18
Latin America and the Caribbean	19.44	10.53	16.67	11.11	14.69
Middle East and North Africa	13.89	5.26	8.33	7.41	9.79
Sub-Saharan Africa	33.33	50.00	0.00	25.93	26.57
South Asia	8.33	5.26	0.00	0.00	3.50
Total	100.00	100.00	100.00	100.00	100.00
Low HDI	38.89	64.86	0.00	20.00	31.39
Middle HDI	58.33	35.14	39.39	72.00	49.64
High HDI	2.78	0.00	57.58	8.00	17.52
Very high HDI	0.00	0.00	3.03	0.00	1.46
Total	100.00	0.00	100.00	100.00	100.00
Industrialized countries	8.33	10.53	55.56	33.33	26.57
Emerging countries[a]	36.11	18.42	36.11	37.04	30.07
Developing countries	27.78	28.95	5.56	18.52	22.38
Less developed countries	27.78	42.11	2.78	11.11	20.98
Total	100.00	100.00	100.00	100.00	100.00

[a]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations

recognition of the diversity of rights, which is significantly higher than for the whole sample. GDP per capita is low and the prevalence of malnutrition is high. Not surprisingly, this cluster includes developing countries (a significant share of the sub-Saharan countries and some Central Asian countries) and a small subset of emerging economies (Bolivia, India, Morocco, Nigeria and Romania).

At the opposite, the *modern agriculture* model cluster is characterized by a high productivity level, with agriculture amounting for a small percentage of employment, GDP and exports. Institutional aspects are

Table 9.5 Classification of countries in the different clusters[a]

Cluster 1—*Dualistic agriculture* (38 countries)

Algeria	**Ecuador**	**Iran**	**Pakistan**	Uzbekistan
Angola	**Egypt**	Latvia	**Peru**	**Venezuela**
Botswana	**El Salvador**	Lesotho	**Sri Lanka**	Vietnam
Cambodia	Finland	Mauritania	Sudan	Yemen
China	Haiti	Mauritius	Syria	Zambia
Congo Rep.	Honduras	Namibia	Tanzania	**Zimbabwe**
Costa Rica	Hong Kong	Nepal	**Thailand**	
Croatia	**Indonesia**	Norway	Togo	

Cluster 2—*Traditional agriculture* (38 countries)

Albania	Colombia	**India**	Mali	Papua New Guinea
Azerbaijan	Congo Dem. Rep.	Iraq	Mongolia	**Romania**
Bangladesh	Ethiopia	Kazakhstan	**Morocco**	Rwanda
Benin	Gabon	Kenya	Mozambique	Senegal
Bolivia	Ghana	Kyrgyz Rep.	Myanmar	Tajikistan
Burkina Faso	Guinea-Bissau	Lao PDR	Niger	Uganda
Cameroon	Guatemala	Madagascar	**Nigeria**	
Central Africa	Guinea	Malawi	Panama	

Cluster 3—*Modern formalized agriculture* (40 countries)

Argentina	Denmark	Jamaica	**Mexico**	Spain
Australia	**Dominican R.**	Japan	Netherlands	Sweden
Austria	France	**Jordan**	New Zealand	Switzerland
Belgium	Germany	Kuwait	**Oman**	Trinidad and Tobago
Bulgaria	Greece	Lebanon	Portugal	United Arab Emirates
Canada	**Hungary**	Lithuania	Puerto Rico	United Kingdom
Chile	**Israel**	Luxembourg	Slovak Rep.	USA
Czech Republic	Italy	**Malaysia**	**Slovenia**	**Uruguay**

Cluster 4—*Idiosyncratic agriculture* (27 countries)

Armenia	Estonia	Moldova	**Saudi Arabia**	**Turkey**
Belarus	Gambia	Nicaragua	Serbia-Herzeg.	Turkmenistan
Brazil	Georgia	Paraguay	Sierra Leone	Ukraine
Burundi	Korea DPR	**Philippines**	**South Africa**	
Cote d'Ivoire	**Korea Rep.**	**Poland**	Swaziland	
Eritrea	Macedonia	**Russia**	**Tunisia**	

[a]Bold characters denote emerging countries, in the sense that they have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's
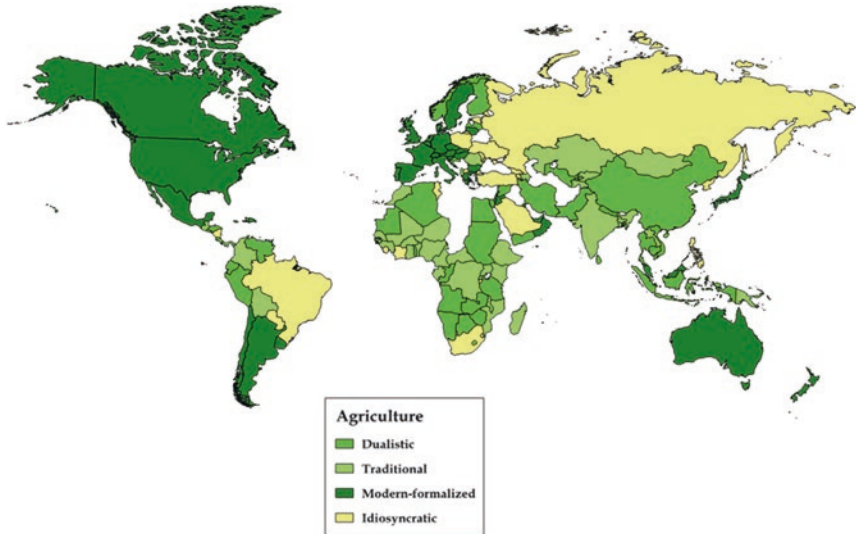
Fig. 9.3 World map of the models of agriculture governance

essential since the countries belonging to this type all exhibit remark-
ably high levels of legal formalization of land tenure systems. More spe-
cifically, in these countries, property rights are secure and land policies
effective. Although almost all OECD countries unsurprisingly belong to
this group, various emerging countries, especially those acknowledged
for their dynamic agricultural exporting sector, like Argentina, Chile and
Israel, also show *modern* agriculture governance.

The *dualistic agriculture* model cluster is certainly the most interesting
for our purpose of identifying the types of agricultural systems that are
specific to developing and countries. Almost one third of emerging coun-
tries belong to this group (among others, China, Ecuador, Indonesia,
Peru, Sri Lanka, Thailand and Zimbabwe). This group is not necessarily
characterized by strongly specific structural features since it is situated at
an intermediate position alongside this dimension. This cluster is actually
distinguished from either the traditional or the modern one by specific
institutional features: land tenure systems are heterogeneous and land
rights tend to be weakly recognized for a significant part of the farm-
ers, the smallholder peasants. Moreover, land tenure policies are rarely

enforced, and only those actors that are sufficiently powerful both politically and economically succeed in securing their assets. This particularity drives land concentration and strengthens the dualistic structure of the agricultural sector. That is why this model is called the *dualistic agriculture* model. Higher levels of performance, notably with respect to the *traditional agriculture* type, are reached in spite of a weak legal environment. But this high-yielding agriculture is often concentrated in commodity-exporting large and formalized farms. Average good agricultural performance, despite the low level of overall land rights recognition and enforcement, can also be explained by recent modifications in agricultural practices introduced by new investors, foreign or domestic, small groups of entrepreneurial peasants who have adopted more productive methods than smallholders.

The progressive inclusion of new types of actors in rural areas probably increases property rights insecurity, with traditional land right systems, frequently informally guaranteed at local communitarian level, being progressively replaced by new better-established ones. It is worth noting that a similar phenomenon also tends to emerge in *traditional agriculture* countries, notably via the international land-grabbing phenomenon.

9.5   Conclusion

This chapter proposes a classification analysis of agriculture models based on a broad sample of countries and with the inclusion, in addition to more usual variables about productivity and the size of agriculture, of variables about land property rights, reflecting institutional aspects. The empirical strategy is based on the combination of PCA analysis and mixed classification analysis, which generate endogenous multidimensional classifications.

The introduction of institutional variables adds key information for the understanding of agriculture models. As shown by PCA, institutional variables constitute, on their own, an axis of observed heterogeneity explanation. They consequently play a key role in differentiating

agricultural models. Three agricultural models have been identified. The *traditional* and *modern* ones are clearly opposed with respect to both performance and institutional outcomes. The third model, named *dualistic*, is particularly interesting as regards property rights aspects. Somewhat paradoxically, higher levels of agricultural performance are to be found in countries with higher land rights insecurity.

The countries belonging to this group seem to be in a transition stage; changes in agricultural practices are undermining the traditional land right system's capacity to guarantee smallholder's land property, with these farmers' investment and productivity being eventually depressed. Concerning the endogenous dynamics of land property rights, we can formulate two hypotheses: (i) more adapted institutions have not yet emerged but are still to come, or (ii) insecurity could be a permanent characteristic in these countries or, at least, in some of them. The second scenario is supported by the idea that insecurity can serve the interests of the dominant groups. Since they are often better endowed with all forms of capital than the others, they commit more resources to protecting their own land rights and can even use the prevailing uncertainty to their advantage, notably by grabbing the insufficiently well-established land rights of the others, thereby generating violent conflicts.

Concerning the recent "agriculture for development" paradigm, that may only be realized by an inscription in land tenure systems (Byerlee et al. 2009), endogenously linked to the evolution of agricultural practices, although some important changes are at work in most developing countries, there is no indication that these changes will spontaneously reduce poverty and inequalities. Public policies will continue to have a central role to play in the agricultural development domain.

Appendix

Table 9.6 Statistical sources

Code	Label	Definition	Source
Classification variables			
Share_ag	Agriculture in GDP	Agriculture, value added (% of GDP) – Constructed variable	World Bank, WDI 2007
Lab_agr	Agricultural workers	Employment in agriculture (% of total employment)	World Bank, WDI 2007
Share_exp	Agricultural exports	Agricultural raw materials exports (% of merchandise exports)	World Bank, WDI 2007
Urb_bia	Urban bias	Urban/Rural differences in access to water (% of urban population with access to improved water sources in urban areas—% of rural population with access to improved water sources in rural areas)—Constructed variable	World Bank, WDI 2007
Fert	Fertilizer	Fertilizer consumption (100 grammes per hectare of arable land)	World Bank, WDI 2007
Machinery	Machinery	Agricultural machinery, tractors per 100 hectares of arable land	World Bank, WDI 2007
VA_agr_t	Workers productivity	Agriculture, value added per worker (constant 2000 US$)	World Bank, WDI 2007
Sh_agro	Agro-industry	Food, beverages and tobacco, value added (% of agriculture value added) – Constructed variable	World Bank, WDI 2007
Land_rig	Rights diversity	Diversity of land tenure right systems (from 1 = high diversity to 4 = single land system)	CEPII 2009
Land_rec	Rights recognition	Government recognition of the diversity of land tenure rights systems (from 1 = no formal government recognition to 4)	CEPII 2009

Table 9.6 (continued)

Code	Label	Definition	Source
Land_sec	Rights security	Security of land tenure rights (from 1 = very high percentage of the population without recognized rights to 4 = very low or zero percentage)	CEPII 2009
Land_pol	Land tenure policies	Public land tenure policies (0 = no public arrangement; then from 1 = rarely enforced or inefficient to 4 = effective)	CEPII 2009
Variables used for the characterization			
LandGini	Gini's index of land concentration	Gini's index of land concentration	FAO, National census
Ghi	Global Hunger Index	Global Hunger Index	IFPRI
Malnut_w	Malnutrition prevalence weight for age	Malnutrition prevalence weight for age (% of children under 5)	World Bank, WDI 2007
Land_dem	Demand for land	Demand for land (from 1 = low demand for land to 4 = high demand)	CEPII 2009
Larg_inv	Land tenure and large investors	Land tenure and large investors (from 1 = very small-scale investors in urban/rural areas to 4 = very large scale)	CEPII 2009

Table 9.7 Simple correlations between the 12 agricultural variables

	Agricultural workers	Agriculture in GDP	Workers productivity	Agricultural exportation share	Urban bias	Fertilizers	Machinery	Agro-industry	Rights diversity	Rights recognition	Land tenure policies	Rights security
Agricultural workers	1											
Agriculture in GDP	0.60	1										
Workers productivity	−0.50	−0.49	1									
Agriculture exportation share	0.18	0.44	−0.18	1								
Urban bias	0.38	0.50	−0.47	0.28	1							
Fertilizers	−0.32	−0.40	0.44	−0.21	−0.36	1						
Machinery	−0.38	−0.39	0.58	−0.17	−0.33	0.34	1					
Agro-industry	−0.32	−0.35	0.29	−0.16	−0.20	0.17	0.14	1				
Rights diversity	−0.16	−0.16	0.21	−0.14	−0.02	0.115	0.130	−0.04	1			
Rights recognition	−0.16	−0.07	0.20	−0.05	0.028	−0.04	0.06	−0.01	0.62	1		
Land tenure policies	−0.22	−0.19	0.32	−0.12	−0.08	0.10	0.16	0.04	0.63	0.65	1	
Rights security	−0.20	−0.24	0.36	−0.15	−0.11	0.10	0.21	0.02	0.62	0.61	0.79	1

Note: Bold characters denote a significant correlation at the 5% level

Data sources: Author's calculations on data collected from World Bank, WDI, CEPII, FAO, National census and IFPRI; for details, see Table 9.6

Table 9.8 Data summary statistics (means and standard deviation), 145 countries

Variables	All	OECD	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	Sub-Saharan Africa	South Asia
Employment in agriculture (% of total)	25.45 (24.01)	4.30 (0.64)	38.07 (7.10)	24.71 (3.52)	18.20 (3.07)	24.89 (5.92)	48.21 (8.27)	54.80 (8.18)
Agriculture value added (GDP%)	14.50 (13.25)	2.36 (0.364)	20.07 (4.57)	11.42 (1.64)	9.5 (1.28)	8.93 (1.77)	25 (2.26)	23 (4.18)
Agriculture value added per worker (US$)	8008.7 (13,447)	31,660 (2420.2)	5755.4 (4104.8)	4699.9 (1628.3)	3451.1 (541.0)	8401.6 (3228.4)	655.76 (144.3)	470.60 (104.4)
Agriculture share of export (in %)	5.26 (9.72)	6.13 (2.33)	6.13 (2.33)	3.13 (0.68)	2.86 (0.64)	1.15 (0.59)	12.03 (2.77)	1.60 (0.24)
Urban bias	19.02 (17.56)	0.05 (0.05)	23.4 (4.99)	14.32 (3.73)	17.19 (2.71)	14.08 (4.46)	32.62 (2.28)	12 (3.15)
Fertilizer consumption	1398.4 (3111.9)	3130.6 (1096.91)	2990.8 (1493.14)	747.08 (170.53)	1220.5 (319.20)	1549.9 (405.55)	210.26 (67.98)	1528.1 (456.1)
Machinery	424.58 (1396.67)	1807.6 (652.52)	235.55 (95.98)	351.66 (68.97)	121.61 (22.72)	153.60 (36.50)	34.64 (10.00)	90.49 (31.64)
Agro-industry (% of GDP)	2.14 (6.19)	2.15 (0.35)	7.74 (5.27)	0.81 (0.08)	1.79 (0.39)	2.79 (1.11)	0.90 (0.20)	0.34 (0.06)
Diversity of land tenure systems	2.98 (0.92)	3.38 (0.21)	2.87 (0.21)	3.11 (0.18)	3.17 (0.23)	2.92 (0.26)	2.62 (0.17)	2.87 (0.13)
Rights recognition	3.14 (0.97)	3.52 (0.19)	2.96 (0.27)	3.20 (0.24)	3.19 (0.24)	2.99 (0.27)	3.03 (0.17)	2.50 (0.50)
Land tenure policies	3.05 (0.86)	3.64 (0.18)	2.77 (0.22)	3.25 (0.19)	2.98 (0.21)	2.99 (0.24)	2.74 (0.14)	3.00 (0.36)
Rights security	2.65 (0.85)	3.38 (0.15)	2.31 (0.24)	2.71 (0.17)	2.55 (0.20)	2.56 (0.24)	2.37 (0.14)	2.63 (0.12)
N	**145**	**23**	**18**	**26**	**21**	**14**	**38**	**5**

Variables	All	Low HDI	Middle HDI	High HDI	Very high HDI
Employment in agriculture (% of total employment)	25.45 (24.01)	61.56 (5.33)	33.36 (2.59)	17.00 (2.62)	4.19 (0.49)
Agriculture value added (% of GDP)	14.50 (13.25)	28.13 (1.97)	15 (1.29)	7.53 (0.86)	4.69 (1.97)
Agriculture value added per worker (US$)	8008.7 (13,446.69)	432.88 (50.20)	1720.7 (228.35)	4665.2 (676.11)	27,838 (2896.14)
Agriculture exportation share (% of exports)	5.26 (9.72)	12.11 (2.73)	3.51 (0.64)	2.70 (0.57)	2.16 (0.39)
Urban bias	19.02 (17.56)	31.95 (2.37)	19.43 (2.30)	15.13 (3.56)	2.89 (1.53)
Fertilizer consumption	1398.4 (3111.93)	225.73 (56.85)	972.25 (185.06)	1268.7 (294.01)	3588.3 (1086.72)
Machinery	424.58 (1396.67)	32.33 (9.48)	131.89 (18.33)	290.89 (59.33)	1483.3 (511.31)
Agro-industry (% of GDP)	2.14 (6.19)	0.51 (0.09)	1.13 (0.19)	1.98 (0.53)	4.94 (2.20)
Rights diversity of land tenure systems	2.98 (0.92)	2.62 (0.16)	2.86 (0.16)	3.20 (0.16)	3.35 (0.19)
Rights recognition	3.14 (0.97)	2.91 (0.18)	2.90 (0.17)	3.20 (0.20)	3.57 (0.16)
Land tenure policies	3.05 (0.86)	2.64 (0.14)	2.87 (0.13)	3.10 (0.17)	3.64 (0.15)
Rights security	2.65 (0.85)	2.30 (0.14)	2.47 (0.13)	2.57 (0.16)	3.30 (0.15)
N	145	40	37	30	33

Table 9.8 (continued)

Variables	All	Industrialized countries	Emerging countries[a]	Developing countries	Less developed countries
Employment in agriculture (% of total employment)	25.45 (24.01)	15.05 (2.86)	19.16 (2.69)	29.74 (4.32)	65.38 (6.32)
Agriculture. value added (% of GDP)	14.50 (13.25)	7.44 (1.34)	10.12 (0.99)	15.79 (2.51)	30.54 (2.45)
Agriculture value added per worker (US$)	8008.7 (13,446.69)	18,820 (2731.19)	4465.2 (1097.95)	5750.8 (2250.8)	295.63 (29.36)
Agriculture exportation share (% of exports)	5.26 (9.72)	2.95 (0.51)	2.88 (0.52)	4.56 (0.82)	14.39 (4.17)
Urban bias	19.02 (17.56)	6.64 (1.87)	17.83 (2.54)	23.58 (2.26)	29.86 (3.12)
Fertilizer consumption	1398.4 (3111.93)	2020.1 (683.85)	1497.3 (220 .12)	1624.9 (749.33)	200.86 (71.06)
Machinery	424.58 (1396.67)	1233.5 (409.94)	196.17 (40.57)	140.64 (36.10)	18.48 (8.23)
Agro-industry (% of GDP)	2.14 (6.19)	1.74 (0.27)	1.13 (0.13)	4.92 (2.24)	0.66 (0.22)
Rights diversity of land tenure systems	2.98 (0.92)	3.27 (0.17)	3.05 (0.13)	2.92 (0.18)	2.63 (0.19)
Rights recognition	3.14 (0.97)	3.35 (0.19)	3.11 (0.15)	3.18 (0.20)	2.91 (0.19)
Land tenure policies	3.05 (0.86)	3.47 (0.16)	3.04 (0.14)	3.06 (0.15)	2.61 (0.16)
Rights security	2.65 (0.85)	3.12 (0.14)	2.66 (0.13)	2.55 (0.18)	2.23 (0.14)
N	**145**	**39**	**43**	**34**	**29**

[a]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations on data collected from World Bank, WDI, CEPII, FAO, National census and IFPRI; for details, see Table 9.6

References

Bairoch, P. 1963. *Révolution industrielle et sous-développement*. Paris: Société d'édition d'enseignement supérieur.

Berry, A.R., and W.R. Cline. 1979. *Agrarian Structure and Productivity in Developing Countries*. Baltimore: John Hopkins University Press.

Bezemer, D., and D. Hedeay. 2008. Agriculture, Development and Urban Bias. *World Development* 36 (8): 1342–1364.

Binswanger, H.P., and K. Deininger. 1997. Explaining Agricultural and Agrarian Policies in Developing Countries. *Journal of Economic Literature* 35 (4): 1958–2005.

Boserup, E. 1990. *Economic and Demographic Relationships in Development*. Selected and Introduced by T. Paul Schultz. Baltimore and London: Johns Hopkins University Press.

Byerlee, D., A. De Janvry, and E. Sadoulet. 2009. Agriculture for Development: Toward a New Paradigm. *Annual Review of Resource Economics* 1: 15–31.

Chayanov, A.V. 1966. On the Theory of Non-capitalist Economic Systems. In *The Theory of Peasant Economy*, ed. D. Thorner, B. Kerblay, and R.F. Smith. Homewood, IL: Richard Irwin.

De Soto, H. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else?* New York: Basic Books.

Deininger, K. 2003. *Land Policies for Growth and Poverty Reduction*. World Bank Policy Research Report. Washington, DC: World Bank/Oxford University Press.

Dufumier, M. 2007. *Agricultures africaines et marché mondial*. Paris: Fondation Gabriel Péri.

Ellis, F. 1988. *Peasant Economics: Farm Households and Agrarian Development*. Cambridge: Cambridge University Press.

FAO. 2006. *The State of Food Insecurity in the World*. Rome: FAO.

———. 2008. *The State of Food Insecurity in the World*. Rome: FAO.

Goldstein, M., and C. Udry. 2008. The Profits of Power: Land Rights and Agricultural Investments in Ghana. *Journal of Political Economy* 116 (6): 981–1022.

Grimm M. and S. Klasen. 2009. Endogenous Institutional Change and Economic Development: A Micro-level Analysis of Transmission Channels. *Courant Research Center: Poverty, Equity and Growth—Discussion Papers* No. 14, Courant Research Centre PEG.

Hill, P. 1986. *Development Economics on Trial: The Anthropological Case for a Prosecution*. Cambridge: Cambridge University Press.

Johnston, B., and J. Mellor. 1961. The Role of Agriculture in Economic Development. *American Economic Review* 51 (4): 566–593.

Lewis, W.A. 1954. Economic Development with Unlimited Supplies of Labour. *Manchester School of Economic and Social Studies* 22: 139–191.

Lipton, M. 1977. *Why Poor People Stay Poor: A Study of Urban Bias in World Development*. London: Temple Smith.

Macours, K., A. De Janvry, and E. Sadoulet. 2010. Insecurity of Property Rights and Matching in the Tenancy Market. *European Economic Review* 54 (7): 880–899.

Myrdal, G. 1958. *Value in Social Theory: A Selection of Essays on Methodology*. Edited by P. Streeten. London: Routledge and Keegan Paul.

Popkin, S. 1979. *The Rational Peasant: The Political Economy of Rural Society in Vietnam*. Berkeley: University of California Press.

Rostow, W.W. 1962. *Les étapes de la croissance économique: un manifeste non-communiste*. Paris: Editions du Seuil.

Schultz, T.W. 1964. *Transforming Traditional Agriculture*. New Haven, CT and London: Yale University Press.

Scott, J.C. 1976. *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*. New Haven, CT: Yale University Press.

Szirmai, A. 2005. *The Dynamics of Socioeconomic Development: An Introduction*. Cambridge: Cambridge University Press.

UNCTAD. 2010. *The Least Developed Countries Report 2010*. New York and Geneva: United Nations.

Wiesmann, D., L. Weingärtner, and I. Schöninger. 2006. *Global Hunger Index: The Challenge of Hunger. Facts, Determinants, and Trends*. Washington, DC: International Food Policy Research Institute.

World Bank. 2008. *Agriculture for Development*. World Development Report. Washington, DC: The World Bank.

10

Environmental Regulation Models

André Meunié

10.1 Introduction

Developing countries have progressively become more involved in debates about the global ecological crisis and environmental regulation. Most have already been confronted with impressive levels of natural capital losses due to pollution and the overuse of natural resources. Given the direct and indirect impact of pollution on living conditions, developing country regulators have progressively implemented policies designed to mitigate such degradation. At the local scale, conflicting social choices have arisen since wealth accumulation increases various sources of pollution. On the one hand, a broad consensus generally exists about the necessity of rapid GDP growth, even though economic expansion creates imbalances impacting the most vulnerable part of the population. On the other hand, ecological degradation has reached such high levels that it can

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eventually become harmful for local populations. The burden imposed on certain social groups can reach such unbearable levels, especially in terms of health, that social conflicts may emerge, with collective action sometimes triggering new regulations that translate new compromises into rules and norms.

In what concerns global pollution, emerging countries show complex and contradictory features. On the one hand, their accelerating path of wealth accumulation has transformed some of them into high pollution emitters. This means they should, therefore, acknowledge their emergent responsibility in fighting such global ecological issues as climate change. On the other hand, most emerging countries claim that they are not the real source of the problem, pressing industrialized countries to assume the overwhelming part of the responsibility. An original game thus takes place in the international arenas and organizations that deal with this type of pollution. Emerging countries are urged to join the world coalitions to act against global ecological degradation. However, they seek to minimize their participation in the collective effort, arguing that they need to develop their economies first. At the same time, they try to use these negotiations as a leverage factor to enhance their position in the international community. Whatever the results of such a game, their integration in international institutions certainly improves their ability to implement new types of regulation. The mechanisms of international investment aid, as well as know-how from other countries, give them opportunities to experiment with original solutions, under the aegis of international organizations such as the World Bank. By becoming increasingly involved in international institutions and governance, they have increased their ability to implement effective environmental regulation.

The literature concerning economic emergence and environmental institutions is still very scarce, particularly in what concern macro-comparative analyses. Most of the empirical literature consists in measuring and discussing environmental governance at micro-level. These results, based on household surveys, are of little interest in trying to compare institutional systems. They cannot be used for the construction of those general features that would help to characterize the institutional processes through which emerging countries integrate (or not) the environmental

dimension in their policies. The aim of this chapter is to study the appropriation of environmental concerns, and its institutional translation, for a comprehensive set of developing, emerging and industrialized countries. Since our analysis is comparative, it is based on macro-institutional cross-country data. The next section reviews the literature about environmental regulation in developing countries. The sections that follow present our indicators and show the results of the principal component and cluster analysis. The ensuing models of environmental governance are finally described and discussed.

10.2 Environmental Governance Models and Economic Development: A Review

One of the main specificities of emerging economies is that most of them have started to build environmental institutions in reaction to environmental degradation, without necessarily having reached the development levels at which ecology becomes a social issue. Their first stage of economic growth has mainly been based on industrialization, with little concern for environmental performance. The rapid pace of economic development, especially when pulled by cost-competitiveness, has generally implied high levels of negative environmental externalities, which directly impacts on health. Quite prematurely, the initial social compromises, by which populations traded rapid growth and structural transformation for the external costs generated by increasing pollution, have since become obsolete. Regulators have, therefore, been urged to design and implement more environmentally concerned policies that could durably modify the curve of polluting emissions (Munasinghe 1995). By essentially focusing on local pollution, emerging countries have introduced new institutions, regulations and norms aimed at reducing the undesirable effects of economic takeoff.

Although the research community has paid increasing attention to emerging economies' environmental concerns, there has, so far, been no comparative study of the macro-models of environmental governance that explicitly include these countries. The related literature can, in fact, be divided into three different strands: (i) macro-level analyses of the

relationship between economic development and various environmental issues, (ii) macro- and micro-level analyses of the relationship between over-all regulation and environmental governance, and (iii) micro-level analyses of community-based ecosystem management institutional building.

The first strand of the literature is generally based on the assumption that the combined dynamics of economic development and the natural environment is not unidirectional. In the early 1990s (World Bank 1992), empirical studies showed the existence of an inverted-U relationship between the levels of GDP per capita and polluting emissions. These results suggested that the intensity of the ecological footprint depends on the stage of economic development (Borghesi 1999). In the less developed countries (LCDs), ecosystem degradation is generally limited to the consequences of some basic, mainly agrarian, activities. For instance, deforestation can be provoked by the spatial expansion of agricultural activities or by biomass combustion for heating habitations.

In consequence, polluting emissions have remained low in most non-industrialized developing countries. As a country develops, however, industrial sectors grow, and ecological degradation gradually multiplies and expands. Furthermore, two additional features exacerbate this phenomenon. First, although productive and domestic equipment is not efficient, priority is given to the accumulation of wealth and assets by households, whatever the adverse effects on the natural and social environment. Second, at a more aggregate level, rapid GDP growth acceleration exerts increasing pressure on those local infrastructures and institutions that are not able to control the social and environmental consequences. This literature suggests, however, the existence of an individual wealth threshold beyond which the relation inverts. Empirical findings show that the value of this threshold is close to the current income level of emerging countries (Stern 2004). Once a certain level of per capita GDP has been reached, it seems, therefore, easier to offset the tradeoff between economic growth and the preservation of ecosystems.

The explanations proposed for the U-shaped relationship are based on various features, which, we argue, are common to many emerging countries. First, as citizens become richer, they may become more concerned by the state of their immediate environment. Second, as industries develop, firms are affected by more intense competition. They thus seek

more efficient production processes via innovations, and consequently invest in upgraded, less polluting, equipment. Third, the composition effect, by which the GDP share of industry declines to the benefit of the service sector, allows the pollution that ensues from the accumulation of wealth to decline. The literature on the so-called "environmental Kuznets curve" (EKC) is interesting for our present purpose in two respects. On the one hand, the environmental Kuznets curve's tipping point concerns those emerging countries that have already taken off, but which remain as technological laggards. On the other hand, institution building plays a key role in the reversal of environment sensitivity to economic growth. The modification of citizens' behaviour concerning their environment may be endogenous to the creation of institutions dedicated to the preservation of urban and natural ecosystems.

This hypothesis of an inverted-U curve has been criticized, with the main critics pointing to its incapacity to explain the nature of the relations between economic development and the path of environmental degradations (Llorca and Meunié 2008). That hypothesis offers, nevertheless, interesting insights for categorizing environmental governance models. First, the EKC literature outlines the role of emerging countries in the ongoing globalized environmental path. Focaci (2005) shows, for example, that the economic growth-environmental degradation trends observed in Brazil, China and India differ from those recorded for industrialized countries. The author also insists on the innovative nature of their institutions regulating environmental issues. The paper outlines the original process by which regulators strive to reduce the ecological cost of their development strategies. Second, the EKC literature provides empirical tools to analyse the environmental trajectories of emerging countries. Robust statistical methods, which pave the way for more extensive comparative studies, have gradually developed. The decomposition approach is particularly helpful in disentangling the contributions of the various determinants (population, technology, wealth) to the changing dynamics of the growth–environment relationship. However, since the EKC literature has essentially compared environmental trajectories by focusing on performance variables (mainly polluting emissions) rather than on institutional ones, they fail to characterize and really compare the different forms of national environmental governance.

A second strand of the literature has addressed the natural resource curse, that is, the cumulative process of natural resource over-exploitation by developing countries whose economy ultimately relies on the rents drawn from exporting natural resources (Auty 1993; Robinson et al. 2006; Mehlum et al. 2006). Overall institutional quality seems to affect the way such extractive (oil, minerals) or renewable (lumber, fish) natural resources are used. Aidt (2010) finds a very robust negative correlation between a wide range of different corruption indices and growth in genuine wealth per capita, which he explains by the fact that rampant corruption can "put an economy on an unsustainable path along which its capital base is being eroded". Equally, Damania et al. (2003) have shown that corruption also tends to reduce environmental rules stringency, notably via its influence on liberalization policies when the traded sectors are pollution-intensive. Hence, the overall institutional quality certainly affects the nature and extent of the environmental regulations set up by developing countries.

The third strand of the literature dealing with environmental issues in emerging countries explores environmental governance, defined as "the establishment, reaffirmation or change of institutions to resolve conflicts over environmental resources" (Paavola 2007). Empirical works mainly implement micro-level studies of community-based environmental regulations. This literature essentially focuses on the design of local institutions governing the collective and individual use of common pool resources. It concludes on the (observed) superiority of local over centralized rules to manage common pool resources, in terms of both individual incentives and outcomes (Ostrom 1990). Environmental institutions are analyzed as tools through which agents cooperate locally to reach common resource-use objectives. By securing the outcomes of such collective action processes, local institutions appear to be the most effective governance device to manage common-pooled natural resources (Vatn 2009). Although these analyses are mainly based on microeconomic studies, with their results being consequently highly context-dependent and weakly comparable on a cross-national basis (Anderies 2011), they can, nonetheless, be useful for our purpose insofar as they inform about the patterns of creation and enforcement of environmental institutions in developing economies. First, these coalitions organize modes of multilevel environmental governance (Bache and Flinders 2004) that operate both at centralized and local level. These features are addressed

in our work. Second, emerging countries are all characterized by huge overall patterns of socioeconomic and technical change. Social models are deeply modified under the combined influence of a (much larger than before) middle class emergence, the greater role of foreign firms and the diffusion of new cultural references. The consequences of such changes for natural ecosystems are twofold. On the one hand, ecological degradation sprawls and deepens, with the intensity and frequency of conflicts over ecological resources worsening. On the other hand, environmental conflicts involve an increasing number of heterogeneous actors. Because environmental issues are fundamentally collective, environmental regulations imply the creation of coalitions to influence social compromises about the way natural capital is used or wasted, as a production resource (Safarzyńska and van den Bergh 2010).[1] Since environmental regulation is a recent phenomenon, even for developing countries, it is likely that each developing or emerging country will find its own innovative way of dealing with the specific form of environmental issue it faces.

There is a growing need to characterize environmental governance models, at a sufficiently aggregate level, so that they can be compared internationally. That is what we propose to do in this chapter.

10.3   Assessing Models of Environmental Governance

Environmental concerns are recent, and developing countries' public authorities have tended to build their ecological governance schemes mainly by experimenting with hybrid systems. Since our methodological focus was placed on institutional systems, we chose to limit our data on *environmental performance* and to introduce only institutional variables in our dataset. Although the data on environmental institutions in developing and emerging countries is extremely scarce, we were able, nonetheless, to extract five particularly relevant variables from the Environmental Sustainability Index (ESI Report 2005) in order to com-

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[1] Recent trends of research try to combine ecological economics and political ecology to highlight the influence of social conflicts on environmental governance (see the special issue of Ecological Economics under the direction of Martinez-Alier 2010).

pare national types of ecological governance. Three of these variables assess complementary dimensions of the institutional system. WEFGOV synthesizes the environmental part of the World Economic Forum survey (WEF). The authors of the ESI database implement a principal component analysis (PCA), with each country receiving a score that reflects the effectiveness of *local* environmental institutions. ISO14 corresponds to the number of firms with ISO 14001 certification per billion dollars of GDP (in purchasing power parity). This variable is used as a proxy of private sector involvement in ecological regulations. The code EIONUM stands for the number of memberships in environmental intergovernmental organizations. It reflects the involvement of the nation in global regulation. Two additional variables were then introduced to enhance the description. CSDMIS measures the percentage of variables missing from the CGSDI "Rio to Johannesburg Dashboard", which is interpreted here as an indication of the opacity of public authorities in the environmental domain. PRAREA corresponds to the percentage of total land area under protected status and is interpreted as an estimation of the efforts made for biodiversity preservation.

We have reduced the initial sample of 154 countries by eliminating those for which less than 50% of variables were known, and controlled for the representativeness of the remaining sample. In the overall analysis, corresponding mean values have been used to cancel out the likely influence of the remaining missing observations. Data sources, data summary statistics and simple correlations between considered variables are reported in Tables 10.5 and 10.6 of the Appendix to this chapter.

10.4   Models of Environmental Governance

This chapter presents a two-stage empirical analysis based on multidimensional statistical methods. The first stage aims at creating a set of uncorrelated factors, called principal components, in order to replace an original set of multidimensional quantitative variables by new variables that are linear combinations of the initial variables, with these components explaining most of the variance in the original dataset. In a second stage, we draw models of environmental governance from cluster analysis.

10.4.1 The Main Patterns of Environmental Governance Differentiation

We now proceed to the PCA of our five selected active variables. Three categorical variables describing the geographical localization, HDI level and socioeconomic situation of each country have been used to characterize our models.[2] Table 10.1 shows PCA eigenvalues and active and supplementary variables correlations with each factor. Figures 10.1 and 10.2 respectively show the projection of active variables on the first factorial plan the projection of the active individuals on the same plan.

The number of components to be retained depends on (i) the proportion of total variance explained by each component, (ii) the absolute variance explained by each component (the eigenvalue of each component retained should exceed one, and (iii) the capacity of each component to be interpreted meaningfully. By examining the results of the PCA, we can extract two principal components, accounting for approximately 71% of the total variance.

The first component explains more than half of the total variance, highlighting a clear dichotomy. All variables of "good environmental governance" are concentrated on the right-hand side. This could reveal

Table 10.1 PCA Eigenvalues and active variable-axes correlations

	PC1	PC2	PC3	PC4	PC5
Eigenvalues	2.5625	0.9931	0.7587	0.3485	0.3372
% of variance	51.25	19.86	15.17	6.97	6.74
Cumulative %	51.25	71.11	86.29	93.26	100
Environmental opacity	−0.82	−0.07	−0.35	0.04	0.44
Regulation effectiveness	0.85	−0.08	−0.24	−0.44	0.16
Private sector involvement	0.69	−0.31	−0.57	0.31	−0.07
Global cooperation	0.80	0.01	0.45	0.22	0.34
Biodiversity focus	0.23	0.94	−0.24	0.07	0.02

Data sources: Author's calculations on data collected from WEF survey, FEA (Germany), UIA, CGSDI, and UNEP; for details, see Table 10.5

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[2] Note that these variables do not affect the construction of principal factors. In order to back up PCA results, twenty-five bootstrap replications of the initial sample were implemented in order to provide confidence intervals for the projected variables coordinates. This bootstrap procedure shows that the position of active variables on the first factorial plan is stable, thus confirming the robustness of our PCA results.
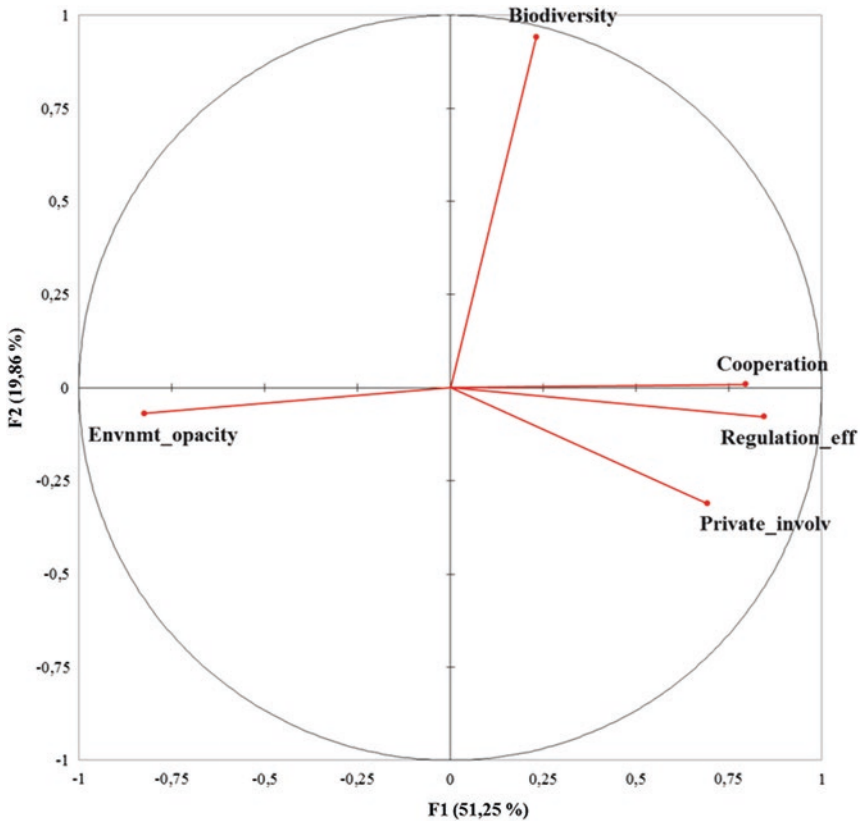
Fig. 10.1 Projection of active variables on the first factorial plan. Data source: Author's calculations; see Table 10.5 for details

a cumulative process in which the effectiveness of local institutions, private sector involvement and participation in international coalitions all self-reinforce. As a consequence, the lack of transparency may be a symptom of a weakness of the institutional architecture, possibly due to a lack of ecological awareness. The individual country projection reported in Fig. 10.1 shows a clear opposition, along the first component, between countries endowed with complete and efficient environmental regulation systems, and countries with ineffective or absent structures. When compared with the rest of the world, rich countries stand out as exhibiting significantly higher institutional consistency and efficiency.
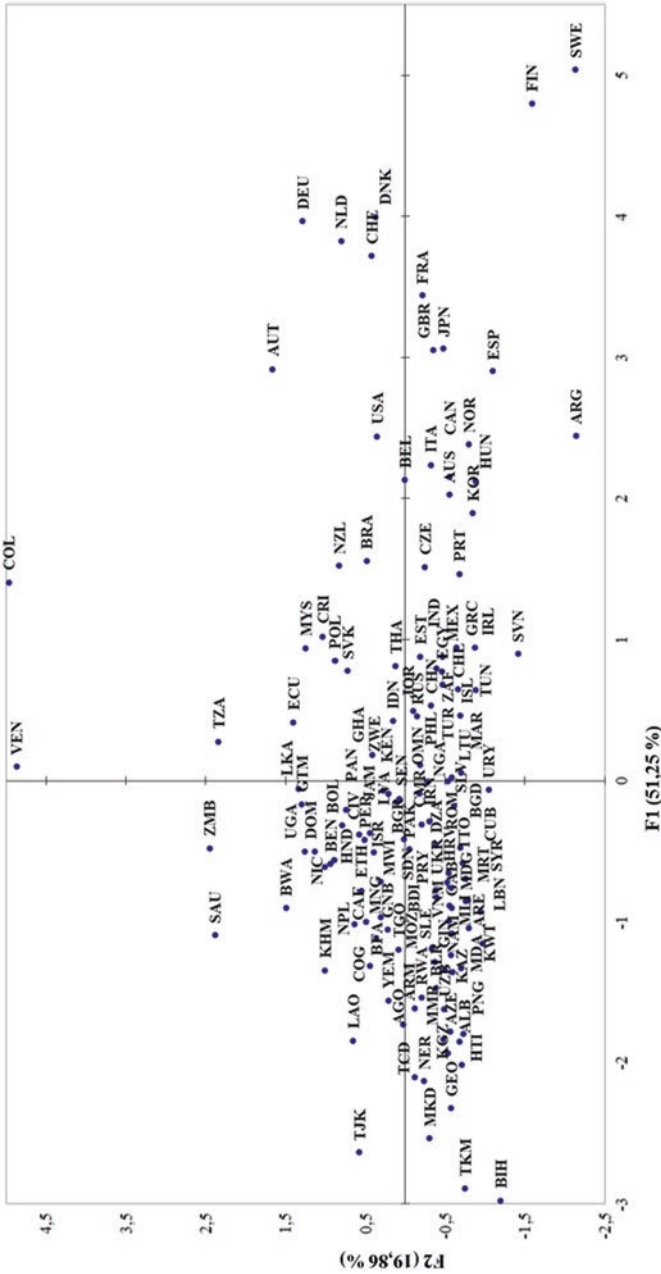
Fig. 10.2 Projection of active individuals on the first factorial plan. Data sources: Author's calculations

The second component explains one fifth of the total sample inertia. The absence of correlation with the other four variables shows that there is no prerequisite (such as the effectiveness of an existing set of environmental institutions) to implement biodiversity "hot spots" regulations (Myers et al. 2000). This result highlights the singularity of national policies explicitly geared towards biodiversity preservation. First, we should note that the creation of a protected area (PA) does not imply high levels of law effectiveness. The specificity of ecosystem preservation, which often consists in involving local populations in the conservation scheme, allows governments or local authorities to enact policies even when the other environmental sectors remain poorly regulated (Oliveira 2002). The ability of regulators to promulgate PAs also depends on the natural potential of their country. If a country possesses remarkable landscapes or big biodiversity reserves, the preservation objective can be more easily promoted and enforced. Moreover, the classical conflict between economic development and environmental protection is generally less critical for PA implementation. One possible explanation is to be found in the growing role of tourism (Sims 2010), which provides local populations with long-term additional financial resources.

It is worth noticing that the international community has launched strategic programmes in support of biodiversity preservation schemes, with many national experiments having received international financial support. This fact may also explain the absence of correlation between the PRAREA variable and the other four variables. International efforts to preserve the remaining zones of special interest for biodiversity act as an exogenous influence, irrespective of the effectiveness of institutional systems.

10.4.2   The Three Environmental Governance Models

On the basis of the information provided by the PCA, we carried out a mixed classification procedure in order to establish homogeneous and meaningful clusters of countries regarding environmental governance. The mixed classification procedure consists of a hierarchical cluster analysis and a consolidation of the relevant partition[3] through k-means-

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[3] The so-called relevant partition, i.e., the relevant number of clusters, is derived from the analysis of the dendrogram and the analysis of two indicators that respectively measure (i) the improvement

like iterations. As such a procedure assigns each individual to one or the other of the identified clusters, we decided to create a supplementary cluster (the idiosyncratic cluster) in order to account for countries whose position is not clear-cut. This cluster brings together countries whose position in the initial multidimensional scatter of points is close to the barycentre.[4]

The cluster membership reported in Table 10.2. Table 10.3 shows the comparative means of each active and supplementary variable by clusters and permits a thorough examination of clusters. Table 10.4 presents the frequencies of informative variables concerning the type of country (industrialized, emerging, developing or less developed), the geographical area and the HDI category (low to very high). Table 10.4 lists the countries belonging to each cluster and Fig. 10.3 maps them in a world atlas.
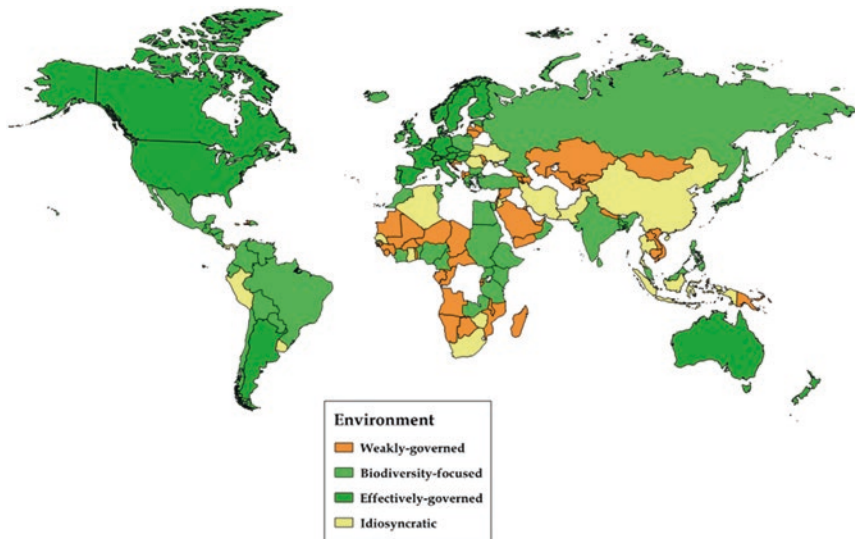
Fig. 10.3   World map of the environmental governance models

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of the inter- to intra-cluster variance ratio from a given partition to another and (ii) the impact of k-means consolidation on that ratio.

[4] More specifically, the standardized Euclidian distance between these countries and the barycentre is below half the median distance.

Table 10.2 Classification of countries in the different clusters

Cluster 1: *Weakly governed*

Albania	Angola	Armenia	Azerbaijan	Belarus
Bosnia and Herzegovina	Botswana	Burkina Faso	Burundi	Cambodia
Central African Republic	Chad	Congo, Rep.	**Croatia**	Cuba
Gabon	Georgia	Guinea-Bissau	Guinea	Haiti
Israel	Kazakhstan	Kuwait	Kyrgyz Republic	Lao PDR
Latvia	Lebanon	Lithuania	Macedonia, FYR	Madagascar
Malawi	Mali	Mauritania	Moldova	Mongolia
Mozambique	Myanmar	Namibia	Nepal	Niger
Papua New Guinea	Rwanda	**Saudi Arabia**	Sierra Leone	Syrian Arab Republic
	Yemen, Rep.	Turkmenistan	United Arab Emirates	Uzbekistan
		Tajikistan	Vietnam	

Cluster 2: *Biodiversity-focused*

Bangladesh	Benin	**Bolivia**	**Brazil**	**Bulgaria**
Cameroon	**Chile**	**Colombia**	Costa Rica	**Cote d'Ivoire**
Dominican Republic	**Ecuador**	**Egypt, Arab Rep.**	**El Salvador**	Ethiopia
Greece	Guatemala	Honduras	Iceland	**India**
Ireland	Kenya	**Malaysia**	**Mexico**	**Morocco**
Nicaragua	**Nigeria**	Oman	Paraguay	**Philippines**
Poland	**Russian Federation**	Slovak Republic	**Sri Lanka**	Sudan
Tanzania	**Tunisia**	**Turkey**	Uganda	**Venezuela, RB**

Cluster 3: *Effectively governed*

Argentina	Australia	Austria	Belgium	Canada
Czech Republic	Denmark	Estonia	Finland	France
Germany	**Hungary**	Italy	Japan	**Korea, Rep.**
Netherlands	New Zealand	Norway	Portugal	**Slovenia**
Spain	Sweden	Switzerland	United Kingdom	United States

Cluster 4: *Idiosyncratic*

Algeria	**China**	Ghana	**Indonesia**	**Iran, Islamic Rep.**
Jamaica	**Jordan**	**Pakistan**	Panama	**Peru**
Romania	Senegal	**South Africa**	**Thailand**	Trinidad and Tobago
Uruguay	Ukraine	**Zimbabwe**		

Note: Bold characters denote emerging countries, in the sense that they have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Table 10.3 Compared means of active, supplementary and informative variables by cluster

	Weakly governed	Biodiversity-focused	Effectively governed	Idiosyncratic	All
Environmental opacity	**33.67** *(6.95)*	**19.88** *(5.58)*	**11.57** *(7.23)*	20.07 *(3.31)*	23.29 *(10.44)*
Regulation effectiveness	**29.15** *(5.99)*	32.79 *(7.63)*	**50.48** *(7.05)*	32.83 *(4.47)*	34.66 *(10.09)*
Private sector involvement	0.189 *(0.43)*	0.306 *(0.38)*	**3.52** *(2.67)*	0.45 *(0.48)*	0.88 *(1.75)*
Global cooperation	**5.71** *(3.43)*	**12.15** *(3.89)*	**16.76** *(6.19)*	10.28 *(1.71)*	10.29 *(5.74)*
Biodiversity focus	8.75 *(8.32)*	17.01 *(16.57)*	14.47 *(9.26)*	9.89 *(5.63)*	12.50 *(11.87)*
GDP per capita (constant 2005 $ – PPP)	6297 *(9806)*	7896 *(8643)*	**29,081** *(8145)*	6342 *(4366)*	11,043 *(12,164)*
HDI	**0.518** *(0.177)*	0.595 *(0.156)*	**0.854** *(0.043)*	0.599 *(0.150)*	0.615 *(0.191)*
Gini index	38.54 *(6.97)*	**44.37** *(8.95)*	**31.70** *(4.77)*	42.25 *(9.60)*	40.33 *(8.99)*

Note: The values that significantly differ (5% level) from those of other clusters (independent samples *t*-test) are in bold

Data sources: Author's calculations on data collected from WEF survey, FEA (Germany), UIA, CGSDI, and UNEP; for details, see Table 10.5

In the first cluster, called *weakly governed*, all the mean differences are significant. The cluster average values are lower for all the indicators of institutional effectiveness, while the opacity indicator has a higher value than for the other groups. Countries in this first cluster therefore failed to organize any structured and controlled relationship with their ecosystem. Unsurprisingly, most of these nations correspond to poor countries whose livelihood relies heavily on those extensive agricultural activities which would be most impacted by more stringent ecological regulations. For instance, more forest protection may prevent slash-and-burn cultivation, and consequently trigger social conflicts in poor developing countries (Geist and Lambin 2002). Actually, the lack of well-designed ecological institutions goes hand in hand with the global

Table 10.4 Compared frequencies of informative variables by cluster

	Weakly governed	Biodiversity-focused	Effectively governed	Idiosyncratic	All
OECD	1.9	7.3	76	0	16.9
East Asia and Pacific	11.5	4.9	4.0	16.7	8.8
Eastern Europe and Central Asia	30.8	12.2	16.0	11.1	19.9
Latin America and the Caribbean	3.8	34.1	4.0	27.8	16.2
Middle East and North Africa	11.5	9.8	0	16.7	9.6
Sub-Saharan Africa	38.5	24.4	0	22.2	25.0
South Asia	1.9	7.3	0	5.6	3.7
Total	*100*	*100*	*100*	*100*	*100*
Low HDI	48.0	27.5	0	22.2	29.3
Middle HDI	26.0	40.0	0	38.9	27.1
High HDI	22.0	22.5	8.0	38.9	21.8
Very high HDI	4.0	10.0	92.0	0	21.8
Total	*100*	*100*	*100*	*100*	*100*
Industrialized countries	28.8	9.8	80.0	5.6	29.4
Emerging countries[a]	5.8	56.1	20.0	61.1	30.9
Developing countries	23.1	19.5	0	27.8	18.4
Less developed countries	42.3	14.6	0	5.6	21.3
Total	*100*	*100*	*100*	*100*	*100*

[a]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations

lack of an institutional framework, and the ensuing weak enforcement of socioeconomic regulation. *Weakly governed* countries (poor and some former socialist countries) exhibit significantly weak overall environmental regulation.

It is worth underlining that 28.8% of the *weakly governed* cluster countries are ex-USSR former Socialist economies that have inherited both extraction-based growth regimes and highly polluting and obsolete industries from the former Socialist era (Ichikawa et al. 2002). They all embarked, in the 1990s, upon transition strategies that accelerated the destruction of the state's capacity to set up and enforce any efficient environmental regulation. As they were not bound by institutional constraints, short-term-focused economic agents have significantly endangered ecosystems. This explains the limited involvement of the private sector in the environmental regulation that is observed for this cluster. Moreover, since poor and ex-USSR countries are absent from international community arenas, they have not extensively benefited from international support to build efficient regulative systems.

The second cluster (*biodiversity-focused*) is particularly interesting for our purposes, since it is mostly composed of emerging countries (56.1%). As shown in Table 10.3, this group exhibits two strong characteristics. The *biodiversity-focused* type includes both developed and poorer countries, which, because they are endowed with exceptional local environmental resources, have been driven to adopt "hot spot" preservation policies. These policies appear to be generally effective, irrespective of a country's particular local institutional performance and overall level of development. These countries are characterized by strong involvement in biodiversity preservation and international negotiations.

The emerging responsibility for global ecological stakes (such as greenhouse gas emissions, fossil energy consumption) of these countries should have prompted them to effectively establish more stringent environmental regulations. Unfortunately, however, they have kept on performing badly in terms of environmental regulation. As a consequence, their growing involvement in international agreements has been interpreted, at least for the biggest emerging countries, as a means of reinforcing their emerging diplomatic power (Papa and Gleason 2012). This seems to be the case for China in the domain of green technologies. In fact, it is not clear whether that trend of growing

international involvement will really help public authorities, or provide them with additional incentives, to implement effective internal policies. Even though pollution is on the increase and ecological constraints become more severe with greater wealth accumulation, economic growth and poverty alleviation remain the top priority of most developing countries' governments (Andresen 2007). In our empirical results, the indicator for environmental regulation effectiveness is not statistically significant. The countries of this cluster also fail to involve their private sector, perhaps because of their international strategies. Very often, their specialization in world trade is based on their comparatively low costs. In the environmental sector, this strategy prompts low-cost firms to let environment-related external costs remain uncontrolled. The countries of the *biodiversity-focused* cluster, just like those of the *weak governance* model, are characterized by weak environmental governance and a particularly low degree of private sector involvement in ecological awareness and protection. At the same time, however, this group is more involved in international regulation than the *weakly governed* countries, which indicates the emerging global political responsibility of its members.

The third cluster is clearly the group of the more environmentally friendly systems. Not surprisingly, almost all rich and industrialized countries belong to this cluster. Argentina is the only non-European emerging economy to be found in this group. The *effectively governed* type is mainly composed of OECD countries which have developed complete schemes of environment protection and preservation, and whose private and public actors are deeply involved in global regulation.

10.5   Conclusion

Environmental regulation is an institutional domain that is conspicuously absent from studies of capitalism, whether they refer to developed or developing countries. In the environmental sphere, emerging countries seem to be characterized by a complex and contradictory dynamic.

They follow two potentially conflicting objectives: economic development and environmental protection. Although several leading developed and developing countries have resisted attempts to enforce global environmental regulation, many developing countries have already started to incorporate this environmental dimension, notably by establishing national preservation schemes.

Despite the limited availability of relevant data, certain interesting results have come to the fore in this study in what concerns emerging economies. Four main lines of national environmental governance differentiation can be observed in our sample of countries: (i) the effectiveness of the local institutions governing natural resources, (ii) the degree of private sector involvement, (iii) the extent of the country's participation in international coalitions and (iv) the biodiversity protection intensity. Whereas the first three features are mutually reinforcing and correlated to income per capita, the fourth would seem to be independent of all three. This feature is, moreover, particularly relevant in describing emerging middle-income countries' environmental governance. These four models of environmental governance have been identified as *biodiversity-focused*, *weakly governed*, *effectively governed* and *idiosyncratic*.

Appendix

Table 10.5 List of the variables used

Code	Label	Source
WEFGOV	Regulation effectiveness	WEF survey
ISO14	Private sector involvement	Federal Environment Agency, Germany
EIONUM	Global cooperation	Union of International Associations
CSDMIS	Environment opacity	Consultative Group on Sustainable Development Indicators
PRAREA	Biodiversity focus	United Nations Environment Program

Table 10.6 Data summary statistics—mean value (standard deviation)

Variables	All	OECD	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	Sub-Saharan Africa	South Asia
CSDMIS	23.29 (10.43)	11.63 (6.67)	23.91 (10.33)	28.18 (12.67)	21.05 (5.47)	28.10 (9.78)	28.19 (6.29)	18.26 (3.64)
WEFGOV	34.66 (10.09)	51.69 (6.34)	33.13 (6.10)	33.17 (7.27)	30.21 (6.72)	34.82 (6.82)	28.40 (5.18)	29.73 (2.69)
ISO14	0.88 (1.75)	2.61 (2.47)	0.61 (0.73)	1.06 (1.69)	0.72 (2.10)	0.38 (0.48)	0.07 (0.14)	0.11 (0.09)
EIONUM	10.29 (5.74)	17.44 (5.81)	8.42 (4.60)	4.96 (3.54)	11.73 (3.17)	10.23 (4.25)	9.50 (4.15)	9.80 (5.07)
PRAREA	12.50 (11.87)	14.28 (9.96)	12.14 (8.87)	8.37 (6.59)	18.37 (19.47)	7.69 (11.33)	12.69 (9.96)	11.90 (10.41)

Variables	All	Low HDI	Middle HDI	High HDI	Very high HDI
CSDMIS	23.29 (10.43)	28.07 (6.36)	23.60 (8.86)	25.62 (10.85)	13.79 (10.19)
WEFGOV	34.66 (10.09)	27.08 (4.35)	30.95 (5.83)	33.92 (5.81)	50.13 (6.47)
ISO14	0.88 (1.75)	0.04 (0.09)	0.26 (0.35)	0.88 (1.88)	2.82 (2.34)
EIONUM	10.29 (5.74)	8.69 (4.17)	8.94 (4.70)	8.93 (5.10)	15.17 (6.86)
PRAREA	12.50 (11.87)	12.19 (9.66)	13.38 (16.45)	11.09 (10.41)	14.09 (9.32)

Variables	All	Industrialized countries	Emerging countries[a]	Developing countries	Less developed countries
CSDMIS	23.29 (10.43)	20.87 (13.77)	19.51 (7.36)	27.62 (7.79)	29.22 (6.25)
WEFGOV	34.66 (10.09)	42.91 (12.24)	34.50 (6.53)	30.89 (5.22)	26.74 (4.62)
ISO14	0.88 (1.75)	1.79 (2.29)	1.04 (1.88)	0.22 (0.41)	0.04 (0.10)
EIONUM	10.29 (5.74)	11.33 (8.51)	11.71 (3.89)	9.44 (3.37)	7.52 (3.60)
PRAREA	12.50 (11.87)	11.25 (9.20)	14.50 (15.70)	11.65 (9.44)	12.02 (10.61)

[a]Emerging countries are those that have been considered as such by at least one of the following institutions: Boston Consulting Group, BNP Paribas, IMF or Standard and Poor's

Data sources: Author's calculations on data collected from WEF survey, FEA (Germany), UIA, CGSDI, and UNEP; for details, see Table 10.5

Table 10.7 Simple correlations between WCI variables

Variables	CSDMIS	WEFGOV	ISO14	EIONUM	PRAREA
CSDMIS	**1**	**−0.557**	**−0.371**	**−0.658**	−0.162
WEFGOV	**−0.557**	**1**	**0.595**	**0.521**	0.152
ISO14	**−0.371**	**0.595**	**1**	**0.338**	0.022
EIONUM	**−0.658**	**0.521**	**0.338**	**1**	0.107
PRAREA	−0.162	0.152	0.022	0.107	1

Note: Bold characters denote a significant correlation at the 5% level
Data sources: Author's calculations on data collected from WEF survey, FEA (Germany), UIA, CGSDI, and UNEP; for details see Table 10.5

References

Aidt, T.S. 2010. Corruption and Sustainable Development. *Cambridge Working Papers in Economics* 1061, Faculty of Economics, University of Cambridge.

Anderies, J.M. 2011. The Challenge of Understanding Decisions in Experimental Studies of Common Pool Resource Governance. *Ecological Economics* 70: 1571–1579.

Andresen, S. 2007. Key Actors in UN Environmental Governance: Influence, Reform and Leadership. *International Environmental Agreements* 7 (4): 457–468.

Auty, Richard M. 1993. *Sustaining Development in Mineral Economies*. London: Routledge.

Bache, I., and M. Flinders. 2004. *Multi-level Governance*. Oxford: Oxford University Press.

Borghesi, S. 1999. The EKC: A Survey of Literature. *FEEM Working Paper* 85-99.

Damania, R., P.G. Fredriksson, and J.A. List. 2003. Trade Liberalization, Corruption, and Environmental Policy Formation: Theory and Evidence. *Journal of Environmental Economics and Management* 46: 490–512.

ESI Report. 2005. Environmental Sustainability Index: Benchmarking National Environmental Stewardship. Yale Center for Environmental Law & Policy and Center for International Earth Science Information Network.

Focaci, A. 2005. Empirical Analysis of the Environmental and Energy Policies in Some Developing Countries Using Widely Employed Macroeconomic Indicators: The Cases of Brazil, China and India. *Energy Policy* 4 (33): 543–554.

Geist, H., and E. Lambin. 2002. Proximate Causes and Underlying Driving Forces of Tropical Deforestation. *Bioscience* 52 (2): 143–150.

Ichikawa, N., R. Tsutsumi, and K. Watanabe. 2002. Environmental Indicators of Transition. *European Environment* 12: 64–76.

Llorca, M., and A. Meunié. 2008. SO2 Emissions and Environmental Kuznets Curve: The Case of China. *Journal of Chinese Economics and Business Studies* 7 (1): 1–16.

Martinez-Alier, J. 2010. Social Metabolism, Ecological Distribution Conflicts, and Valuation Languages. *Ecological Economics* 70 (2): 153–158.

Mehlum, H., K. Moene, and R. Torvik. 2006. Institutions and the Resource Curse. *Economic Journal* 116 (508): 1–20.

Munasinghe, M. 1995. Is Environmental Degradation an Inevitable Consequence of Economic Growth: Tunneling through the EKC. *Ecological Economics* 29: 89–109.

Myers, N., R.A. Mittermeier, C.G. Mittermeier, G.A.B. Fonseca, and J. Kent. 2000. Biodiversity Hotspots for Conservation Priorities. *Nature* 403: 853–858.

Oliveira, J.A.P. 2002. Implementing Environmental Policies in Developing Countries through Decentralization: The Case of Protected Areas in Bahia, Brazil. *World Development* 30 (10): 1713–1736.

Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.

Paavola, J. 2007. Institutions and Environmental Governance: A Reconceptualization. *Ecological Economics* 63: 93–103.

Papa, M., and N.W. Gleason. 2012. Major Emerging Powers in Sustainable Development Diplomacy: Assessing Their Leadership Potential. *Global Environmental Change* 22: 915–924.

Robinson, J.A., R. Torvik, and T. Verdier. 2006. Political Foundations of the Resource Curse. *Journal of Development Economics* 79: 447–468.

Safarzyńska, K., and J. van den Bergh. 2010. Evolving Power and Environmental Policy: Explaining Institutional Change with Group Selection. *Ecological Economics* 69: 743–752.

Sims, K.R.E. 2010. Conservation and Development: Evidence from Thai Protected Areas. *Journal of Environmental Economics and Management* 60: 94–114.

Stern, D. 2004. The Rise and Fall of Environmental Kuznets Curve. *World Development* 8 (32): 1419–1439.

Vatn, A. 2009. Cooperative Behaviour and Institutions. *The Journal of Socio-Economics* 38: 188–196.

World Bank. 1992. *World Development Report: Development and the Environment.* Washington, DC: The World Bank.

Part III

Varieties of Emerging Capitalism, Institutional Complementarities and Trajectories

11

The 2 + 4 Varieties of Capitalist Systems

Eric Rougier and François Combarnous

11.1   Emerging Countries' Institutional Configurations

In Part II, we relied on institutional cross-country data to identify and discuss various institutional modes of governance of each of the seven socioeconomic sectors under study: labour and production relation, social protection, finance and credit, competition and product market, education and training, agriculture and environment regulation. These can be found in Table 11.1 below. Some of the sectoral governance models generated there, such as *market-oriented* finance or *liberalized* competition and product market, correspond to well-known models that have been adopted by many developed countries. Our analysis has also revealed more original models, like the remittance-based *informal* social protection model or the *export-oriented* education system, which are more specific of developing and emerging countries. These two types, in particular,

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Table 11.1 The seven sectors and their corresponding types of organization

Sectors	Models of sectoral governance
Labour and production relations	*Coordinated, liberal, paternalistic, informal, idiosyncratic*
Competition	*Liberalized-deregulated, export-oriented, statist partially liberalized, statist protective, idiosyncratic*
Social protection	*Decommodified, liberal, informal* (*remittance-based*), *social insecurity, idiosyncratic*
Finance	*Mature, embryonic, intermediated* (*repressed*), *idiosyncratic*
Education	*Universal, upgrading export-oriented, neglected, idiosyncratic*
Agriculture	*Modern formalized, dualistic, traditional, idiosyncratic*
Environment	*Effectively governed, biodiversity-focused, weakly governed, idiosyncratic*

provide a perfect illustration of developing countries' capacity to adapt to an increasingly globalized world by adopting innovative regulations.

Our main task in Part III is to understand how exactly these different models of sectoral governance actually coalesce at country level to form a national institutional system. Specific patterns of sectoral types of governance can first be analysed at country level, like in the following section that describes the institutional configurations found for the BRIC group, and for broader sets of emerging countries. We then proceed to analyse the regularities to be observed across the 140 national institutional configurations based on the institutional types identified in Part II.[1] When these configurations are clustered, we see that, despite the obvious heterogeneity of institutional systems at country level, six very different capitalist models emerge. The characteristics of these models were then detailed, before being analysed for internal consistency. We find that their distribution does not show any one-to-one correspondence with world regions. On the contrary, the diversity that is to be found is at national, not regional level. The main patterns of differentiation between country-level economic systems concern the extent of institutional formalization and experimentation. The degree of liberalization merely constitutes a secondary source of differentiation. We conclude by arguing that our cluster analysis sheds light on the variety of institutional transition paths that are accessible to poor and middle-income countries.

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[1] Table 11.4 at the end of the present chapter lists those 140 national institutional configurations.

The specific sets of sectoral governance models that were found for each country have been reported in Table 11.4 in the Appendix. Of course, as their identification was based on the measurement of institutional commonalities and discrepancies across countries, these sectoral modes of governance are the output of a relative characterization and must not be considered as the product of a scrupoulous and in-depth description of each national institutional system. Certain specific combinations of these sectoral models can be regularly observed across our country sample. The combination of *coordinated labour and production relations*, *liberalized deregulated competition*, *decommodified social protection*, *mature finance*, *universal education*, *modern formalized agriculture* and *effectively-governed environment* tends, for instance, to be found for many OECD countries. Equally, the fact that several *idiosyncratic* sectoral governance types are often to be found in a significant number of countries strongly suggests that original institutional configurations have arisen throughout the developing world.

If we turn to the most common groups of emerging economies, and notably the BRICs, we can now try to identify more specifically the combinations of sectoral governance models that are the most frequently observed for those countries, whereas they are not identified as such for the poorest or the most mature economies. Table 11.2 shows that the four BRICs share common characteristics for some institutional sectors. The four countries have all adopted a *liberal* social protection model, that model being the best fitted to the initial objective of poverty targeting in countries where the population is very large. Russia, India and China share similar *statist protected* and *intermediate* (bank-oriented) models of competition and of finance. Those two elements seem to bear some forms of complementarity as they are associated in at least three out of four countries. In these respects, Brazil is more advanced along the path of liberalization reforms and presents another form of complementarity, associating the *statist partially liberalized* and the *embryonic financial* models. By contrast, those BRICs are strongly differentiated as regards their educational sector governance models, and to a lesser extent their agriculture and Labour relations governance models, suggesting that those three dimensions do not bear close linkages or complementarities. The result may be surprising in what concerns labour relations since it could be anticipated that the characteristics of the labour market and of the social relations are more related to the education and the production sphere.

Table 11.2 BRICs' observed institutional clusters

	Brazil	Russia	India	China
Agriculture	*Idiosyncratic*	*Idiosyncratic*	*Traditional*	*Dualistic*
Competition	*Statist partially liberalized*	*Statist protected*	*Statist protected*	*Statist protected*
Education	*Upgrading export-oriented*	*Universal*	*Neglected*	*Idiosyncratic*
Labour	*Coordinated*	*Coordinated*	*Paternalistic*	*Informal*
Finance	*Embryonic*	*Intermediated (repressed)*	*Intermediated (repressed)*	*Intermediated (repressed)*
Social protection	*Liberal*	*Liberal*	*Liberal*	*Liberal*
Environment	*Biodiversity-focused*	*Biodiversity-focused*	*Biodiversity-focused*	*Idiosyncratic*

If we now turn our attention to the group of emerging countries that are the most often cited by classifications (Argentina, Brazil, Chile, China, Egypt, Indonesia, India, Mexico, Malaysia, Philippines, Turkey, South Africa), they show marked differences with the other developing countries for some specific sectors. As regards education, for example, most emerging economies have adopted the *idiosyncratic educational* systems and the *focus on biodiversity* model of environmental regulation. But emerging economies also share common characteristics in what concerns their social protection model. The vast majority of emerging countries has adopted the *liberal social protection* model, with very few of them having chosen to set up *decommodified social protection*. Our framework enables identifying the sets of sectoral institutional models that are frequently matched together in national systems. *Idiosyncratic education* tends to be frequently associated to *export-oriented deregulated product markets*, *deregulated labour market* and *social insecurity*. If we were to define a combination of institutional systems that could characterize high-exporting emerging economies, it would certainly include those complementarities. Those lines of differentiation are robust when we consider the broadest perimeter of countries the most commonly classified as 'emerging' (the twelve mentionned above plus Bangladesh, Botswana, Colombia, Jordan, Sri Lanka, Morocco, Mauritania, Nigeria, Pakistan, Peru, Thailand, Tunisia, Vietnam).

Since the level of analysis we have adopted here does not deal with those dimensions, we do not examine business coordination mechanisms, nor do we address in detail the sociopolitical compromises that support those mechanisms at national level, as is done in the comparative capitalism (CC) literature.[2] Our aim in this chapter is, instead, to obtain a clear picture of what exactly constitutes the institutional systems that have been identified for a particularly large sample of heterogeneous countries. Before our capitalism models are more fully presented in Sect. 11.3, the three main sources of institutional differentiation identified by our empirical analysis: institutional formalization, institutional experimentation and statism are described in the next section. The assumption of homogenous regional models of capitalism is then discussed in Sect. 11.4. We also appraise, in Sect. 11.5, our models' consistency against the existing typologies or models that were overviewed in Chap. 2. In the following chapter, Chap. 12, we assess the main institutional complementarities underlying our models, as well as the institutional hierarchies and reinforcing factors. Chapter 13 compares trajectories of transition from informal to formal institutional systems for several countries that were initially similar and have evolved differently. Chapter 14 then recapitulates our main results and draws their policy implications for institutional reforms in poor countries.

11.2   The Three Patterns of Developing Country Capitalism Differentiation

Now that the 2 + 4 clusters have been delineated and described, the sequencing of the successive differentiation patterns that have driven the different stages of the clusterization process requires further comment. Figure 11.1 depicts the four different stages that have generated our final classification into six groups.[3] At each stage, a previously grouped set of

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[2] Chapters 1 and 2 give more detailed account of these choices. Although we do not include polity as a clustering variable, we do consider that political dimension in both Chaps. 12 and 13.
[3] At each stage, the composition of the selected number of groups is governed by the general principle that countries are clustered into groups in which within-group heterogeneity is minimized, and between-group heterogeneity is maximized.

Stages of country clusterization
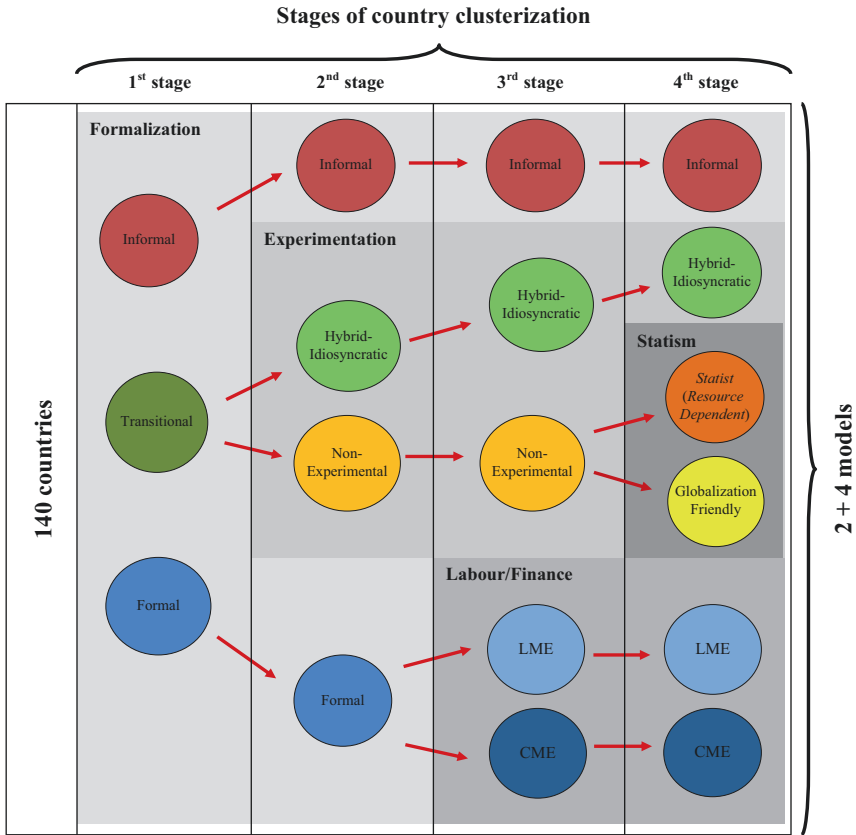
Fig. 11.1 Clusterization and patterns of country differentiation

countries is split into two smaller, internally more homogeneous, sub-groups, with the other previously grouped sets remaining fairly stable. For each stage of clusterization, the corresponding type of differentiation has also been reported in the graph.[4]

At the first stage of clusterization, the main source of country differentiation is the degree of institutional formalization and, as will be explained

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[4] Figure 14.1 is absolutely not the description of an historical evolutionary process. It is reported here because it gives useful clues about what are the most powerful and significant sources of differentiation of national institutional systems.

below, its correlate, the economic development level. Once initial differences in the degree of institutional formalization have been considered, clusterization is due, at the second stage, to institutional experimentation. This criterion divides the transitional systems group into two subcategories: (i) experimental systems, which are highly original and not simple replications of existing models, and (ii) non-experimental systems, which are more inspired by the polar Statist and Liberal models. Once institutional formalization and experimentation have been accounted for, a third source of differentiation opposes the formal systems of mature capitalist countries according to their different labour and finance institutional characteristics. The fourth and final stage of clusterization concerns the so-called non-experimental transitional systems. This is mainly observed in middle-income countries, and is related to the degree of statism or state intervention in the socioeconomic system.

As shown in Fig. 11.1, the first pattern of differentiation between our sample countries thus concerns institutional formalization. The three different models issued from that first stage range from the informal to the formal institutional systems, with a transitional institutional system group appearing in an intermediary position. From that point onwards, the informal group, featuring a majority of poor economies, remains remarkably stable: its composition remains the same until the very end of the clusterization process. That is the group that has been labelled *Informal* (*Weak State*). As for the formal group, it remains stable over the second stage of clusterization, only emerging at the third stage, where it definitively crystallizes into *CMEs* (coordinated market economies) and *LMEs* (liberal market economies). The third pattern of differentiation shows that the two formalized institutional models, the *CME* and *LME*, are essentially distinguished by their labour market and financial system polar characteristics. The distinctive features of *CME* and *LME* that emerge from our statistical analysis are, therefore, more circumscribed than the extensive set of institutional differences enunciated in CC literature (Hall and Soskice 2001).

It is scarcely surprising that the first order of differentiation between our 140 country institutional configurations refers to institutional formalization. This result supports North's (1990) description of economic development as a long-term historical process of transition from infor-

mal to formal rules of conduct, especially as regards market transactions. But our results are also in accordance with those of Meisel and Ould Aoudia (2008) who found that the degree of depersonalization and formalization of rules constitutes the main line of differentiation between national institutional configurations. Computing, for each cluster, the average value of the formalism index, used by Djankov et al. (2003) to measure the degree of formalism of various procedures of economic justice, gives a similar hump-shaped distribution. The mean for clusters in the formalism index, which is very low for the *Informal* (*Weak State*) model (3.72), increases for the *Hybrid-Idiosyncratic* (4.19) and *Statist* (*Resource Dependent*) (4.28) systems, before finally declining for either the *Globalization-Friendly* (3.30) or the *LME* (2.72) model. It should be stressed, however, that the inverted U-shape is not related to the level of income. Such an assumption would entail that the more developed the country, the more formalized its judicial system. The *CME* has an average formalism index of 3.84, which is higher than the average level reported for middle-income *Globalization-Friendly* countries, and is much the same as that of the *Informal* (*Weak State*) model. Even if legal formalism provides information about differences in the degree of formalization in the case of lower-income countries, that indicator, when it comes to more developed nations, is best fitted to describing the legal origin, whether for civil or common law systems (Djankov et al. 2003). Our sense of formalization is closer to the idea that governance mechanisms of economic, social and political exchange become progressively less relation-based but more rule-based. Equally, enforcement and conflict litigation becomes progressively less based on community and reputation, and more on courts and formal sanctions (Dixit 2004).

When examining the composition of these three groups (formal, transitional, informal) generated by the first stage of classification, each of them comes over as highly homogeneous in terms of income (respectively corresponding to higher-income, middle-income and lower-income countries). This confirms the high degree of correlation between income per capita and institutional formalization to be found in the new institutional economics (NIE) empirical works which, since they tend to restrict their focus to one-dimensional institutions that linearly improve with

economic development, do not go beyond that point to differentiate economic systems.

When, however, income per capita and the degree of institutional formalization are controlled for, other sources of differences in economic systems come to light, enabling the transitional/intermediary group to be differentiated.[5] The process of clusterization, per se, conveys three subsequent patterns of differentiation that, since they are not linearly related to income per capita,[6] could lead to better understanding of the institutional differences between countries. One of these patterns concerns developed countries as described above. The other two patterns, which specifically concern developing countries, are discussed below.

The second pattern, experimentation, relates to the degree of institutional configuration singularity between the so-called transitional systems. The countries that are neither formal, nor *Informal* (*Weak State*), have been called transitional institutional models in Fig. 11.1. As explained above, middle-income countries have formalized economic systems that are more or less original as regards their composition, or the types of institution that they articulate. This originality, when it is a conscious strategy or choice on the part of the country, can be called institutional experimentation. Two transitional system types have been differentiated by our cluster analysis: the experimental one, which we have called *Hybrid-Idiosyncratic*, and the non-experimental type. The non-experimental category includes models that initially clustered together because they had been adopted by a sufficiently high number of countries in the sample. At a later stage, as shown in Fig. 11.1, these models finally cluster into *Statist* (*Resource Dependent*) and *Globalization-Friendly*. In sharp contrast, the *Hybrid-Idiosyncratic* category concerns countries that have set up very singular models, either hybrid or idiosyncratic, as described in Sect. 11.2.

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[5] Additional socioeconomic, political, historical or geographical characteristics that enable further differentiation of our clusters are analysed in Chap. 12.

[6] As from the second stage of differentiation, classification is less related to differences of economic development, since within-group heterogeneity of income per capita is high for Clusters 3, 4 and 5 that respectively correspond to the *Hybrid-Idiosyncratic*, *Statist* (*Resource Dependent*) and *Globalization-Friendly* models.

Table 11.3 The 2 + 4 varieties of capitalism

Cluster	Label	Countries and their income levels	Overall sample share	Share of developing countries
(1)	*Liberal Market (LM)*	Australia, Canada, Denmark, Iceland, Republic of Ireland, Israel, Japan, Korea, New Zealand, Switzerland, United Kingdom, USA	8.6	–
(2)	*Coordinated Market (CM)*	Argentina, Austria, Belgium, *Bulgaria*, Czech Republic, Croatia, Estonia, Germany, Finland, France, Greece, Holland, Hungary, Italy, Luxembourg, Norway, Portugal, Sweden, *Lithuania*, Poland, *Romania*, Slovakia, Slovenia, Spain, Ukraine	17.8	4.9
(3)	*Globalization-Friendly*	Azerbaijan, Botswana, Chile, Ghana, Hong Kong, Jamaica, Jordan, Kazakhstan, Kuwait, Latvia, Malaysia, Mauritius, Namibia, Panama, Singapore, South Africa, Thailand, Trinidad and Tobago, United Arab Emirates, Uruguay	14.2	14.8
(4)	*Statist (Resource Dependent)*	Algeria, China, Ecuador, Egypt, El Salvador, Guatemala, India, Iran, Mexico, Morocco, Oman, Pakistan, Peru, Russia, Sri Lanka, Syria, Tunisia, Turkey, Venezuela, Yemen	14.3	18.8
(5)	*Hybrid-Idiosyncratic*	Albania, Armenia, Brazil, Colombia, Costa Rica, Cote d'Ivoire, Dominican Republic, **Gambia**, Georgia, Honduras, **Kyrgyz Republic**, Lebanon, Lesotho, Macedonia, Moldavia, Nicaragua, Philippines, Saudi Arabia, Serbia, Sudan, Swaziland, **Tajikistan**	15.7	20.8

| (6) | Informal (Weak State) | *Angola*, **Bangladesh, Benin,** *Bolivia*, **Burkina Faso, Burundi, Cambodia,** *Cameroon*, **Central African Republic, Chad,** *Congo,* **Congo (Democratic Republic), Ethiopia,** <u>*Gabon,*</u> **Guinea-Bissau, Guinea, Haiti,** *Indonesia*, **Kenya,** *Lao PDR*, **Madagascar, Malawi, Mali, Mauritania,** *Mongolia*, **Mozambique, Nepal, Niger,** *Nigeria, Papua New Guinea, Paraguay*, **Rwanda,** *Senegal*, **Sierra Leone, Tanzania, Togo, Uganda,** *Uzbekistan, Vietnam, Zambia*, **Zimbabwe** | 29.4 | 40.7 |

Note: Low-income countries are shown in bold characters, lower-middle income in italics, higher-middle income in underlined italics, and high income in double underlining

The fourth and final pattern of differentiation, as previously mentioned, concerns the middle-income country non-experimental group, which subdivides into *Statist* (*Resource Dependent*) and *Globalization-Friendly* systems according to the degree of internal and external liberalization. Liberalization, still, does not constitute, per se, the main line of differentiation between developing country capitalisms. When it comes to characterizing the different capitalisms of developing countries or distinguishing between *CME* and *LME* mature capitalisms, the standard opposition between statism and liberalization is valid. However, that standard statism/liberalization opposition, since it only comes at the last stage, just gives a marginal picture of the true diversity of capitalisms across developing countries, since it merely concerns one third of the developing countries, as shown in Table 11.3. The remaining two-thirds, characterized at the first two stages as *Informal* (*Weak States*) or *Hybrid-Idiosyncratic* systems, are simply not discriminated by that opposition but by the first two orders of differentiation: that of institutional formalization and, for the transitional group, that of institutional experimentation.

The fact that experimentation allows for earlier differentiation between our heterogeneous developing countries than is the case for the more standard differentiation between statist and liberal systems, constitutes a key finding of our research. This means that studies which only consider scales of institutional formalization (property rights enforcement) or one-dimensional oppositions between institutional systems (degree of state interventionism) tend to bypass the diversity of institutional systems. This means that they neglect the possibility of considering the whole spectrum of possible institutional transitions towards a formal system.

11.3   Capitalisms in the World: 2 + 4

Starting with the 140 national institutional configurations described in Table 11.4, we use a hierarchical clustering procedure[7] in order to identify groupings of countries with homogeneous institutional systems.

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[7] This mixed classification procedure first implement a hierarchical cluster analysis and then consolidates the relevant partition through some *k*-means-like iterations aimed at increasing inter-cluster variance while minimizing intra-cluster variance.
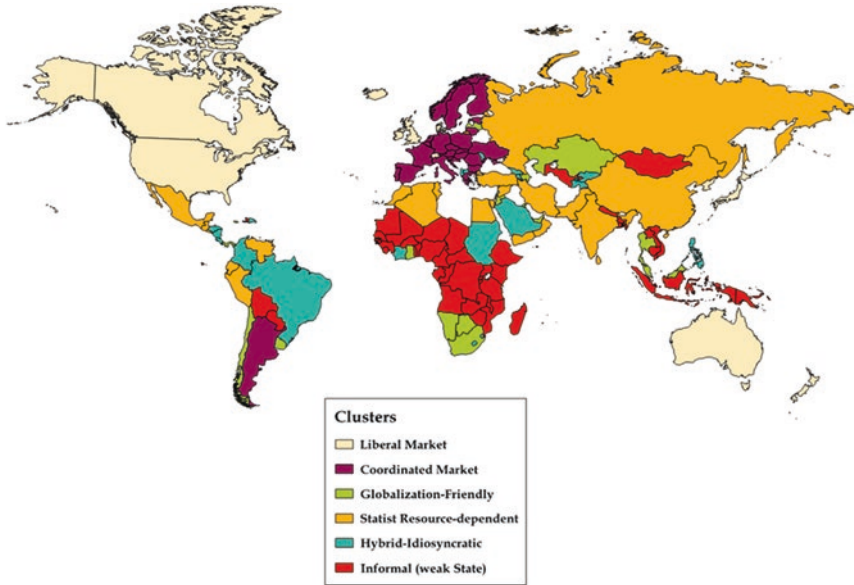
Fig. 11.2 The 2 + 4 models of capitalism

The final classification reveals six clusters,[8] reported in Table 11.3 and Fig. 11.2. Each country's World Bank income level classification is also reported in Table 11.1, in order to show how the various varieties of capitalism are distributed across average income levels. Whereas Clusters 1 and 2, mostly concerning OECD countries, have highly homogeneous income levels, this is really not the case for Clusters 3, 4 and 6; as for the *Hybrid-Idiosyncratic* Cluster 5, this is extremely heterogeneous.[9]

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[8] The relevant number of clusters (six in this case) is derived from the analysis of the dendrogram and the analysis of two indicators that (i) maximize the marginal improvement of the inter- to intra-cluster variance ratio from one given partition to another and (ii) minimize the impact of k-means consolidation on that ratio. Two classifications, one with five, the other with six clusters, proved valid in terms of generally accepted criteria. A comparison of these two classifications enables the robustness of our classification method to be confirmed, since four groups (*Informal, Statist, CME* and *LME*) remain essentially stable, whether five or six clusters are concerned, except for an extremely limited number of countries that are discussed below.

[9] Cluster 5 includes countries at all levels of income, ranging from the Gambia to Saudi Arabia.

11.3.1 *Liberal Market* and *Coordinated Market* Capitalisms

Cluster 1 brings together countries with institutional configurations, which turn out to be very similar to those referred to by Hall and Soskice (2001) as *Liberal Market Economies* (LME): contractual and flexible capital-labour relations, a high degree of market competition, liberal social protection and a deep, broad financial market. Australia, Canada, Switzerland, Denmark, Great Britain, Republic of Ireland, Israel, Japan, Korea, New Zealand and the USA are all to be found in this group. Cluster 1 also very much resembles what Amable (2003) calls the *Anglo-Saxon* model, except for Japan and Korea, which he subsumes into the *Asian* model. It should be borne in mind that when the classification is extended from five to six clusters, Malaysia, Hong Kong and Singapore, initially to be found in the LME group, end up in the Globalization-friendly model. This means that, out of all the *Globalization-friendly* countries, these three East Asian countries are closest to LME-style institutional formalization.

Cluster 2 has been labelled *Coordinated Market Economies*. This cluster associates various features of *Coordinated market economies* described by Hall and Soskice (2001): *coordinated* labour market, *decommodified* social protection, *democratic universal* education, a *liberalized competitive* product market and *intermediate bank-oriented* finance, *effective environmental governance* and *highly formalized and productive* agriculture.

The cluster includes Austria, Belgium, Finland, France, Germany, Greece, Holland, Italy, Luxembourg, Norway, Portugal, Spain, and Sweden. Many Central and Eastern European countries, like Bulgaria, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Poland, Romania, Slovakia, Slovenia and Ukraine, are to be found in this group. This is not exactly a big surprise since, as has been pointed by Becker (2009), although state ownership remains high in many of these countries, and market capitalization rather low (Lane and Myant 2007: 23), the institutional changes that took place in some of them seems to point in the direction of Western types of capitalism: Statist for Czech Republic, Hungary, Poland or Slovakia, or Corporatist for Slovenia. The presence of Argentina as the only non-European country in the cluster might seem

more surprising.[10] However, Argentina has deeply reformed its institutional system over the last 40 years and the country's long-term proximity to European culture, inherited from the massive streams of migration during the late nineteenth and early twentieth centuries (Acemoglu and Robinson 2012), has probably oriented reforms towards European modes of coordinated capitalism.

11.3.2   *Informal* (*Weak State*), *Hybrid-Idiosyncratic*, *Statist* (*Resource Dependent*) and *Globalization-Friendly* Capitalisms

Most of the poor developing economies have been clustered as *Informal* (*Weak State*) capitalist systems (Cluster 6). *Informal* capitalism includes thirty Sub-Saharan countries, as well as Bangladesh, Bolivia, Haiti, Indonesia, Lao, Nepal, Uzbekistan and Vietnam (Table 11.1). It should first be emphasized that this cluster is very robust to changes in the number of clustered groups. *Informal* (*Weak State*) capitalist systems can be described as associating a predominantly stable set of sector-specific institutional types: *informal* labour, *outward-oriented* agriculture, *statist-protectionist* product market, *embryonic* (mostly informal) finance, *social insecurity*, *weak environmental* governance and *narrow* education. The *Informal* economic system is generally poorly regulated, because the state is fragile and has weak capacities, both fiscally and legally. As in all capitalist systems, this model is based on market exchange and free entrepreneurship, although formal capitalism is limited to very few sectors of entreprises. As stressed by Fafchamps (2004), insofar as very few public and private organizations are able to reduce transaction costs by internalizing market transactions in poor informal economies, markets mostly operate on a local basis and are regulated by relation-based governance mechanisms, which leaves them disconnected and unarticulated at a broader level. In consequence, *Informal* (*Weak State*) systems generally have strongly dualistic goods and factor markets, which exclude large parts of supply and demand from the most modern forms of contractual

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[10] It should be noted that even when the classification process descends from six groups to five, the cluster remains unmodified.

transactions. By contrast, the embryonic modern sector, which scarcely exports anything other than basic agricultural or extractive commodities, remains highly protected and state-controlled. As regards living conditions, state-support of education and health is limited to the provision of basic low quality services with highly discriminating access. Environmental regulation, including water sanitation and access, is not a collective priority. Accordingly, the income level of poor and middle-income households relies heavily on private transfers (*Informal* social protection).

On the whole, the *Informal* (*Weak State*) capitalist system comes over as being trapped into an internally consistent, self-reinforcing, institutional configuration. This system tends to be correlated to the weak state described by Besley and Persson (2012) as a self-reinforcing configuration of weak legal and fiscal capacities, and political violence. Indonesia provides a particularly good illustration of this *Informal* (*Weak State*). The country has very poor living conditions, a large population that is growing more rapidly than employment, and an institutional environment reported as acting as a drag on business growth and investment.[11] In addition, political and ethnic institutions have bred conditions for ethnic conflict and violence that regularly destabilize economic life and social conditions (Bertrand 2004).

As regards the more formalized socioeconomic systems, three distinctive ones have been found.

The *Globalization-Friendly* model is characterized by the domination of sector-specific institutional types such as *deregulated labour*, *education biased towards high school* and *export-oriented liberalized competition*. This cluster includes mostly small- and medium-sized dynamic emerging market economies like Azerbaijan, Botswana, Chile, Ghana, Hong Kong, Jamaica, Kazakhstan, Malaysia, Mauritius, Namibia, Panama, Singapore, South Africa, Thailand and Uruguay. When the classification is implemented for five groups instead of six, Clusters 3 and 4 merge to form a "super middle-income group", with Hong Kong, Singapore and Malaysia being pushed towards LME. Such a shift signals that these three countries share more similarities with developed Liberal market econo-

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[11] Despite a slight recent improvement, Indonesia's ranking with respect to Doing Business indicators is still very low (126th for 2011), with the World Bank reporting that significant challenges remain, since labour regulation, infrastructure and the general regulatory burden still hamper investment and the reduction of poverty.

mies than with the average middle-income country. It also suggests that the *Globalization-friendly* model could constitute a possible stage in the trajectory of convergence towards the LME model, at least for a certain number of emerging economies. That possible trajectory, as well as those of the *Statist* (*Resource Dependent*) and *Hybrid-Idiosyncratic* emerging countries, is further analysed in Chap. 13. The following section will confirm that *Globalization-Friendly* countries are clearly converging towards the most developed nations in what concerns economic governance, political and socioeconomic stability and the state legal capacities.

The *Statist* (*Resource Dependent*) model groups economies characterized by a high dependence to either traditional agriculture or natural resources, and by massive state regulation of the labour, financial and product sectors. Their resulting markets are rigid and highly segmented. This cluster includes many large emerging or developing economies that have inherited high degrees of state interventionism from earlier historical episodes (Algeria, China, Egypt, India, Iran, Mexico, Pakistan, Russia,[12] Turkey), but also smaller countries with different historical backgrounds (Ecuador, Guatemala, Morocco, Oman, Peru, Salvador, Sri Lanka, Syria, Tunisia and Yemen). If many of these economies have been described as rentier states, they must not all be reduced to this model. Countries like China, India or Turkey have diversified productive structures and might not be described as rentier states. Still, these large economies remain strongly dependent on agricultural ressources.

The third cluster, which includes a host of middle-income economies, has been labelled *Hybrid-Idiosyncratic*. It brings together countries that can be differentiated from the others in one of two respects. These countries articulate either (i) unconventional sets of well-identified institutional types, or (ii) a majority of idiosyncratic institutional types. We have called *Idiosyncratic* one subset of countries with sector-specific types of regulation that are not easily comparable with other more pervasive ones. The subgroup includes Central American (Costa Rica, Honduras, Nicaragua), Central European or ex-socialist Asian (Albania, Kyrgyzstan, Macedonia, Moldova, Serbia, Tajikistan) countries. The few African countries classified as Idiosyncratic (Cote d'Ivoire, Gambia and Sudan)

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[12] The fact that Russia is classified as *Statist* (*Resource Dependent*) corroborates analyses of Russia as a patrimonial capitalism, characterized by strong political leadership (King, 2007) and highly politically connected firms (Brinkerhoff and Goldsmith 2002).

articulate several idiosyncratic sectoral types with *Informal* (*Weak State*) institutional characteristics in what concerns education, finance and labour market. We have called *Hybrid* the countries that have proceeded to experiment by assembling sector-specific institutional types from different internally consistent institutional models. Some of these have proved effective (e.g., Brazil), others not (e.g., Philippines). The other countries showing hybrid institutional systems are Armenia, Macedonia and Georgia, Colombia and the Dominican Republic, Lesotho and Lebanon. Those hybrid systems also incorporate idiosyncratic types, although in a more limited number than the *Idiosyncratic* subgroup. The *Hybrid-Idiosyncratic* group is thus highly heterogeneous. The group is, nevertheless, predominantly constituted of middle-income countries. Moreover since many countries in the group are labour-exporting and highly remittance-dependent (Albania, Georgia, Lebanon, and so on), the *informal* type of social protection, highly reliant on private transfers, is the only dominant characteristic of the cluster.

If we had to summarize our results in what concerns the main patterns of institutional complementarities observed throughout the different varieties of economic systems, we could stress the following points. Although different modes of governance of both the labour and financial sectors discriminate *LME* and *CME* models, these two dimensions don't significantly contribute to differentiating the different models of emerging capitalism. As for developing nations, labour and competition seems to be the most significant lines of demarcation between our three models of emerging capitalism. The *Hybrid-Idiosyncratic* model is characterized by the articulation of idiosyncratic types of labour and competition regulation. Both the *Statist* (*Resource Dependent*) and *Globalization-Friendly* models rely on very complementary institutional combinations with respect to labour and product market regulation, *gender-biased* and *statist* for the former, *deregulated* and *liberalized* for the latter. In contrast, social protection and education are the main line of differentiation of the *Globalization-Friendly* model, characterized by the *liberal social protection* and *upgrading export-oriented* education and training types, from the two other groups including middle-income economies. Consideration of socioeconomic outcomes shows that there is a clear-cut break separating the sample of six models into two subgroups of three models: on the

one hand, the *CME*, *LME* and *Globalization-Friendly*, and on the other hand, the *Informal* (*Weak State*), *Hybrid-Idiosyncratic* and *Statist* (*Weak State*). The *Globalization-Friendly* model shows higher income, human development index, more export diversification and similarity to world export as well as higher governance quality[13] than all the other groups of developing countries.

Before the main institutional complementarities and hierarchies underlying these 4 + 2 models are more lengthily discussed in next chapter, we test the assumption of regional forms of capitalism, which is pervasive in the CC literature.

11.4 Geographical and Regional Patterns of Emerging Capitalisms

One of the questions that arise in the CC literature is whether there are regional models of capitalism. A related question is whether geographical characteristics can be attached to each model. As explained in Chap. 2, Latin American, East European and East Asian capitalisms have been identified as being significantly different from the other regional forms of capitalism. Generally, however, each of them tends to be described by this literature as a possible regional variation of the forms of capitalism that are attributed to mature industrialized economies. The world atlas of the 2 + 4 forms of capitalism (Fig. 11.2) clearly shows that the common assumption about regional capitalisms being homogeneous is simply not true, especially in the case of developing regions. For the regional model to be justified, two conditions would have to be met. It would have to be (i) a model that is shared between the vast majority of the region's countries; and (ii) one that is specific to the region.

It is true that some forms of capitalism do seem to be more common in certain regions. Unsurprisingly, *Coordinated Market* capitalism is significantly more present in Continental Europe than in the other conti-

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[13] This result holds for all possible sources of governance indicators: ICRG, World Bank WGI, enforceability of contracts, index of property rights, rule of law, corruption indexes for all sources. The contract enforceability Indicator comes from Djankov et al. (2003), and the score of property rights enforcement is taken from the Heritage foundation.

nents, whereas *Liberal Market* capitalism is significantly more present in Oceania, North America. *Informal* (*Weak State*) capitalism also appears to be widespread in Central Africa, whereas the Austral zone is *Globalization-Friendly*, and North Africa is more *Statist* (*Resource Dependent*). Likewise, even though the *Statist* (*Resource Dependent*) form seems to be prevalent in South Asia, there are three different models in South-East Asia (*Informal* (*Weak State*), *Globalization-Friendly* and *Hybrid-Idiosyncratic*), and four (*Informal* (*Weak State*), *Statist* (*Resource Dependent*), *Globalization-Friendly* and *Hybrid-Idiosyncratic*) in Central Asia. This means that the second condition above is only fulfilled for Continental Europe, the unique region in which the *Coordinated Market* capitalism has developed.[14] No other model seems to be specific to one region in particular. The *Hybrid-Idiosyncratic* and the *Globalization-Friendly* models, for example, tend to be pervasive throughout all five continents.

As for the first condition, the picture is less clear-cut. On the one hand, it is remarkable that some regions have rather homogeneous economic systems. Former socialist economies have followed distinctive and homogeneous patterns of transition to market economies. Eastern and Central European (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Lithuania, Poland, Romania, Slovakia, Slovenia and Ukraine) have all reformed their systems in line with the *Coordinated market economy* model, by having to adopt the European continental-like socioeconomic governance system. By contrast, the former socialist economies that were out of the European Union's direct influence, like Albania, Armenia, Georgia, Kyrgyzstan, Macedonia, Moldavia, Serbia or Tajikistan, have developed their own models of capitalism. Two Central Asia countries, Azerbaijan and Kazakhstan, which have succeeded in quickly reforming their former systems, have been identified as *Globalization-Friendly* capitalist systems.[15] By contrast, Uzbekistan remains *Informal* (*Weak State*). As for Central and Eastern Europe, although that region seems to meet

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[14] Argentina is the only exception to this rule.

[15] Azerbaijan, which has been reported as having carried out the greatest number of regulatory reforms in 2008, ranks 33rd in the category "regulatory ease of doing business", having leapt from 96th to 33rd rank between 2007 and 2008 (World Bank Doing Business, 2009). Likewise, in 2010, Kazakhstan was recognized by the same source (World Bank Doing Business, 2011) as the "top reformer" in the world, moving up 15 points to 59th place.

condition (1), it does not respect the second condition, since its dominant model, *Coordinated Market* capitalism, is not region-specific. It is, instead, the same as that of Western European countries. Consequently, the whole Continental European region could be considered as being the only region to fulfil the two conditions. The bulk of Middle East and North African countries are classified as *Statist* (*Resource Dependent*) systems (Algeria, Egypt, Iran, Morocco, Oman, Pakistan, Syria, Tunisia, Turkey, Yemen), with the exception of Lebanon and Saudi Arabia, which seem to have developed more singular *Hybrid-Idiosyncratic* models, and of Jordan and the United Arab Emirates, which are overtly *Globalization-Friendly*.

In what concerns Asia, a less clear-cut pattern seems to emerge from data analysis. Whereas South Asian capitalisms appear to be either *Informal* (*Weak State*) (Laos, Vietnam and Indonesia), or *Statist* (*Resource Dependent*) (China, India, and Sri Lanka), East Asian countries have developed more open and liberalized economies, classified either as *Liberal Market* (Japan, Korea) or *Globalization-Friendly* capitalisms (Hong Kong, Malaysia, Singapore, Thailand). The Philippines are clustered as a *Hybrid-Idiosyncratic* model, thereby constituting an Asian exception. As remarked above, however, countries like Hong Kong, Malaysia and Singapore share similarities with Japan and Korea, when the clusterization is reduced to five groups, although all three took off much later. Korea and the Philippines, which were at the same level of GDP per capita in the early 1960s, are now characterized by two radically different models of capitalism.

As for African countries, they also belong to various models of capitalism. Although most African economies remain highly *Informal* (*Weak State*), a minority has already embarked on institutional formalization. Several countries, like Cote d'Ivoire, the Gambia, Lesotho, Sudan or Swaziland, have been experimenting *Hybrid-Idiosyncratic* forms of capitalism, whereas others, those Sub-Saharan African countries that are most frequently considered as emerging market economies (Botswana, Ghana, Mauritius, Namibia, South Africa), have adopted a *Globalization-Friendly* system. It is also worth remarking that, although the high dependence on natural resources of most African states has been generally considered as a crucial explanation for rent-extractive institutions throughout the

last 20 years (Sachs and Warner 1997; Bloom and Sachs 1998; Collier and Gunning 1999), no African country has been classified as a *Statist* (*Resource Dependent*) capitalist model. The main reason for this is probably that most African resource-affluent countries have failed states that are poorly redistributive since their fiscal capacities are weak. Our results, therefore, confirm that resource-led bad political and economic governance has impeded the formalization of consistent institutional systems in Africa.

We can, therefore, find all models in Asia (except that of the *Coordinated Market* model) and four different models throughout the African continent (*Informal* (*Weak State*), *Statist* (*Resource Dependent*), *Globalization-Friendly* and *Hybrid-Idiosyncratic*). As for Latin America, not only does it exhibit a particularly broad variety of forms of capitalism, it also stands out as being the only continental region which does not have one dominant model. Argentina is classified as a *Coordinated Market* economy, Chile, Uruguay, Panama and Jamaica are *Globalization-Friendly* forms of capitalism, Mexico, Peru, Ecuador, Guatemala and El Salvador are all typified as *Statist* (*Resource Dependent*), Brazil, Colombia, Costa Rica, Dominican Republic and Honduras have developed *Hybrid-Idiosyncratic* models, with Bolivia and Haiti being the only Latin American countries to be trapped into the *Informal* (*Weak State*) capitalist model. Latin America does not, therefore, satisfy the two conditions since it shows very heterogeneous forms of capitalism, none of which are specific to the region.

In line with the most recent works (Zhang and Whitley 2013; Reslinger 2013), our data show that there is not one unique East Asian model, but different national models that are not automatically determined by the country's length of capitalist experience since it first took off. Nor is there one unique Latin American model, hierarchical and dependent on transnational corporations. That point, however, will be discussed in Chap. 13, where our results are contrasted with the related results drawn from comparative country case studies. We see thus that, for the most part, the *a priori* label of a regional model is not justified, since the two conditions enumerated above are not respected. Throughout the developing world, even at regional level, it is not similarity that predominates. On the contrary, it is diversity.

11.5 Confronting Our Models with the Existing Varieties of Emerging Capitalisms

Asian capitalisms have been classified into various heterogeneous models by the comparative analysis of Harada and Tohyama (2011), with these different models having undergone divergent trajectories during the 2000s. Singapore and Hong Kong correspond to *City capitalism*, Indonesia and the Philippines are classified as *Insular Semi-agrarian Capitalism*, Japan, Korea and Taiwan as *Innovation-led capitalism*, Malaysia and Thailand as *Trade-led Industrializing Capitalism*, with China being typified as a *Continental mixed capitalism*. Our results are partially consistent with this typology since, in our work, Malaysia and Thailand are two variations of *Globalization-Friendly* capitalism approximately corresponding to the *Trade-led industrializing capitalism* of Harada and Toyama (2011). Our analysis has classified China as *Statist* (*Resource Dependent*) capitalism, which is also similar to the *Continental mixed capitalism* of Harada and Tohyama (2011). As for Indonesia and the Philippines, however, the differences are more marked.

In what concerns Latin American countries, the convergence of our results with existing models is more limited. Chile, also typified as *Gobalization-Friendly* capitalism, has been classified by Bizberg and Théret (2012) and Miotti et al. (2012) as *Outward-looking State-led capitalism*, whereas Brazil and Mexico, respectively classified as *Hybrid-Idiosyncratic* and *Statist* (*Resource Dependent*) capitalisms, are described as *Inward-looking State-led* and *Outward-looking statist* models by Bizberg and Théret (2012). Schneider (2009), who focuses on inter-firm relations and their effects on labour market regulation and education, describes Latin American economies as *Hierarchical market economies* (HMEs). These are characterized by large diversified domestic business groups, multinational corporations, highly state-regulated labour market but atomistic employee and labour relations and low levels of education and vocational skills. According to Schneider, Latin American HMEs show negative complementarities between these four elements. Strongly hierarchic relationships between large business groups and their subsidiaries,

limit the emergence of new entrants in many sectors, with the low-skill specialization of domestic firms leading to high turnover and short-term labour relationship dominance, and low public and private investment in skills. These negative complementarities are reinforced by strong state intervention in promoting diversification and attracting FDI, while inhibiting the emergence of alternative non-state and non-market modes of coordination like unions or life-time employment conventions (Schneider 2009). Globalization-led volatility also intensifies short-term management of a flexible and generic-skilled working force. Likewise, high inequality undermines both public efforts to promote investment in human capital, and private attempts to organize negotiated coordination within firms.

Strong state intervention over labour markets, notably via regulation, is a dominant feature of our *Statist* (*Resource Dependent*) model describing five Latin American countries (Ecuador, El Salvador, Guatemala, Mexico, Peru, Venezuela). Other countries, like Argentina, Brazil and Chile, described by Schneider as HMEs, belong to radically different clusters in our analysis. Hierarchy, in fact, are not be assessed by our analysis since inter-firm relationships are not observable at aggregate level, which limits comparability. Hence, in what concerns Latin American countries, our typology only partially fits in with existing typologies. The main reason is that those typologies have chosen different focuses. Bizberg and Théret (2012) articulate the degree of State intervention with the type of hierarchy, whether external competitiveness or domestic activity is given priority. Schneider (2009) is more concerned with describing the coordination mechanisms conjointly set up by domestic business firms and transnational corporations, with the support of state policies. Our framework is, at the same time, more comprehensive, since we integrate natural resource sectors (agriculture and the environment) and social protection as dimensions of our classification, and more aggregated, with transnational corporation activity being essentially gauged by foreign direct investment (FDI) and financial inflows.

Eastern European economies have been described as a variety of capitalism called *Dependent Market Economy* (DMEs) by Nölke and Vliegenthart (2009). DMEs has close similarities with HMEs (dependence on intra-firm hierarchies within transnational enterprises, large

inflows of FDI, influence of transnational corporations (TNCs) on policy and rule definition, liberal effective modes of labour use and low investment in skills). The main difference actually lies in the type of FDI received—horizontal for Latin American economies and vertical for Eastern European countries—with important implications in terms of comparative advantage and integration to world value chains. Whereas Latin American firms remain strongly focused on their domestic market, with only limited connection to world value chains, Eastern European firms have developed technological capacities under the influence of Western European TNCs. All FDI-receiving Eastern European countries (except for Latvia, which is more aptly described by a *Globalization-Friendly* system) are classified as *CME* in our analysis. Here again, our set-up is not meant to correctly assess the influence of TNCs and FDI on the formation of *CME* variations in Eastern European countries. Homogeneity is, however, higher for this group of countries than it is for Latin American ones.

Appendix

Table 11.4 Characterization variables by cluster [< (>) means significantly lower (higher) value than average]

Variables	Informal (Weak State)	Hybrid-Idiosyncratic	Statist (Resource Dependent)	Globalization-Friendly	Coordinated Market	Liberal Market
GDP, population and growth (Sources: World Bank, UNDP)						
GDP per capita based on PPP (1995)	<	<	<		>	>
GDP per capita based on PPP (2005)	<	<	<		>	>
GDP per capita based on PPP (2010)	<	<	<		>	>
GDP per capita growth (PPP) 1995–2005	<					
GDP per capita growth (PPP) 2005–2010					<	<
GDP (PPP), share of world total 1995	<			<		
GDP (PPP), share of world total 2005	<			<		
GDP (PPP), share of world total 2010	<			<		
GDP (PPP), valuation of country 1995	<					
GDP (PPP), valuation of country 2005	<					
GDP (PPP), valuation of country 2010	<					
rgdppc_2000 (Nunn)	<	<	<		>	>
rgdppc_1950_m	<	<	<		>	>
rgdppc_1975_m	<	<	<		>	>

rgdppc_2000_m	∧	∧		∨	∨	∨
rgdppc_1950_2000_m	∧	∧		∨	∨	∨
Population 1995	∨	∨		∧		∧
Population 2005	∨	∨		∧		∧
Population 2010			∧	∧	∨	
Population—% growth 1995–2005						
Population—% growth 2005–2010						
Human Development Index 1995	∧	∧	∧			∨
Human Development Index 2005	∧	∧	∧			∨
Human Development Index 2010	∧	∧	∧			∨
HDI growth 1995–2005	∨	∨	∨		∧	∧
HDI growth 2005–2010	∨	∨				∧
Poverty (Source: World Bank)						
Population below 1.25 USD/day (PPP) 1990				∨		
Population below 1.25 USD/day (PPP) 1995				∨		
Population below 1.25 USD/day (PPP) 2000				∨		
Population below 1.25 USD/day (PPP) 2005		∨		∨		
Population below 1.25 USD/day (PPP) 2006				∨		
Population below 1.25 USD/day (PPP) 2007				∨		

(continued)

Table 11.4 (continued)

Variables	Informal (Weak State)	Hybrid-Idiosyncratic	Statist (Resource Dependent)	Globalization-Friendly	Coordinated Market	Liberal Market
Population below 1.25 USD/day (PPP) 2008			✓			
Population below 1.25 USD/day (PPP) 1990–2000 (mean if several values)		✓				
Population below 1.25 USD/day (PPP) 2005–after (mean if several values)	✓		✓		✓	
Inequality (Source: World Bank)						
Income Gini coefficient 1995				✓		
Income Gini coefficient 2005			✓			
Income Gini coefficient 2009		✓				
Income Gini coefficient 1990–2000 (mean)				✓		
Labour force (Source: World Bank)						
Total labour force 2005	✓					
Total labour force % growth 1995–2005	✓				✓	✓
Total labour force % growth 2005–2010	✓				✓	✓
Agriculture labour force 2005	✓					
Agriculture labour force % growth 1995–2005	✓	✓	✓		✓	✓
Agriculture labour force % growth 2005–2010	✓	✓	✓		✓	✓

International trade (Source: UNCTAD)

Concentration of goods exports and imports 1995	∧			∨	∨
Concentration of goods exports and imports 2005	∧			∨	∨
Concentration of goods exports and imports 2010	∧			∨	∨
Concentration % growth 1995–2005	∨		∨	∧	
Concentration % growth 2005–2010			∧		∧
Diversification of goods exports and imports 1995	∧	∧		∨	∨
Diversification of goods exports and imports 2005	∧	∧		∨	∨
Diversification of goods exports and imports 2010	∧	∧		∨	∨
Diversification % growth 1995–2005			∨		
Diversification % growth 2005–2010	∧		∨		∧
Terms of trade index 1995				∨	
Terms of trade index 2005				∨	
Terms of trade index 2010	∧				∨
Terms of trade index % growth 1995–2005					
Terms of trade index % growth 2005–2010	∧			∨	∨
Purchasing power of exports 1995	∧				

Table 11.4 (continued)

Variables	Informal (Weak State)	Hybrid-Idiosyncratic	Statist (Resource Dependent)	Globalization-Friendly	Coordinated Market	Liberal Market
Purchasing power of exports 2010	∧				∨	∨
KOF economic Globalization index (Dreher 2006)	∨	∨	∨	∧	∧	∧
KOF social Globalization index (Dreher 2006)	∨		∨	∧	∧	∧
KOF political Globalization index (Dreher 2006)	∨	∨	∧		∧	∧
KOF overall Globalization index (Dreher 2006)	∨	∨		∧	∧	∧

References

Acemoglu, D., and J.A. Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. London: Profile Books.

Amable, B. 2003. *The Diversity of Modern Capitalism*. Oxford: Oxford University Press.

Bertrand, J. 2004. *Nationalism and Ethnic Conflict in Indonesia*. Cambridge, MA: Cambridge University Press.

Besley, T., and T. Persson. 2012. *Pillars of Prosperity*. Cambridge: Cambridge University Press.

Bizberg, I. and B. Théret. 2012. La diversité des capitalismes latino-américains: les cas de l'Argentine, du Brésil et du Mexique. *Revue de la régulation* 11: 1st sem.

Bloom, D., and J. Sachs. 1998. Geography, Demography, and Economic Growth in Africa. *Brookings Papers on Economic Activity* 29: 207–296.

Brinkerhoff, D.W., and A.A. Goldsmith. 2002. *Clientelism, Patrimonialism and Democratic Governance: An Overview and Framework for Assessment and Programming*. Cambridge, MA: Abt Associates Inc..

Collier, P., and J.W. Gunning. 1999. Why Has Africa Grown so Slowly? *Journal of Economics Perspectives* 13: 324–376.

Dixit, A.K. 2004. *Lawlessness and Economics: Alternative Modes of Governance*. Princeton, NJ: Princeton University Press.

Djankov, S., E. Miguel, Y. Qian, G. Roland, and E. Zhuravskaya. 2003. Courts. *Quarterly Journal of Economics* 118: 453–517.

Dreher, Axel. 2006. Does Globalization Affect Growth? Evidence from a New Index of Globalization. *Applied Economics* 38 (10): 1091–1110.

Fafchamps, Marcel. 2004. *Market Institutions and Sub-Saharan Africa: Theory and Evidence*. Cambridge, MA: MIT Press.

Hall, P.A., and D. Soskice. 2001. An Introduction to Varieties of Capitalism. In *Varieties of Capitalism: Institutional Foundations of Comparative Advantage*, ed. P.A. Hall and D. Soskice, 1–78. Cambridge: Cambridge University Press.

Harada, Y., and T. Hinori. 2011. Asian Capitalisms: Institutional Configurations and Firm Heterogeneity. In *Diversity and Transformations of Asian Capitalisms*, ed. R. Boyer, H. Uemura, and A. Isokai. London: Routledge.

King, L. 2007. Central European Capitalism in Comparative Perspective. In *Beyond Varieties of Capitalism: Contradictions, Complementarities & Change*, ed. B. Hancké et al., 307–327. Oxford: Oxford University Press.

Lane, D., and M. Myant. 2007. *Varieties of Capitalism in Post-Communist Countries*. New York: Palgrave Macmillan.

Meisel, N., and J. Ould Aoudia. 2008. L'insaisissable relation entre "bonne gouvernance" et développement. *Revue Economique* 59 (6): 1159–1191.

Miotti, Q., and T. Zane. 2012. Continuités et ruptures dans l'accumulation et la régulation en Amérique latine dans les années 2000: le cas de l'Argentine, du Brésil et du Chili. *Revue de la régulation* 11: 1st sem.

Nölke, A., and A. Vliegenthart. 2009. Enlarging the Varieties of Capitalism: The Emergence of Dependent Market Economies in East Central Europe. *World Politics* 61 (4): 970–702.

Reslinger, C. 2013. Is There an Asian Model of Technological Emergence? *Socio-Economic Review* 11 (1): 371–408.

Sachs, J.D., and A.M. Warner. 1997. Sources of Slow Growth in African Economies. *Journal of African Economies* 6 (3): 335–376.

Schneider, B.R. 2009. Hierarchical Market Economies and Varieties of Capitalism in Latin America. *Journal of Latin American Studies* 41 (3): 553–575.

Zhang, X., and R. Whitley. 2013. Changing Macro-structural Varieties of East Asian Capitalism. *Socio-Economic Review* 11 (1): 301–336.

12

Institutional Complementarities, Hierarchies and Reinforcing Factors

François Combarnous and Eric Rougier

12.1   Introduction

Characterizing original models of emerging capitalism requires that the consistency of these models be analysed, notably by identifying *de facto* or *de jure* complementarities between their sectoral institutional models. In this chapter, therefore, we discuss the internal consistency of our models with respect to the three conditions already underlined in Chap. 3. Any new variety should respect at least three conditions: (1) the existence of an alternative overall economic coordination mechanism closely related to (2) a relatively stable set of institutions based on marked institutional complementarities, which leads to (3) a set of specific comparative advantages determining economic performance that is higher than for comparable socioeconomic systems (Nölke and Vliegenthart 2009: 676). Since meeting these three conditions can be constraining, various comparative

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capitalism (CC) typologies were tested against the two latter assumptions (institutional complementarity, institutional comparative advantage), without trying to predetermine an overall mode of economic coordination. For example, Amable (2003) clusters OECD countries into five models of capitalism (Market-based, Social-democratic, Continental European, Mediterranean and Asian) according to their institutional similarities in the product, labour, finance, social protection and education sectors. Unlike Hall and Soskice (2001), however, he does not try to *a priori* define an overall type of coordination for each of his five models.

Moreover, CC analyses, since they are based on *a priori* ideal types of economic organization, tend to build models by singling out a limited number of traits that are considered as being highly deterministic of the model specificity. Their models of capitalism are generally based on *de jure* institutional complementarities and performance outcomes whose consistency is then evaluated, generally by applying fine-grained comparative case studies. Such typologies, consequently, are not drawn from empirical groupings but, instead, on Weberian ideal types of organization and performance through which actual cases are evaluated (Ahlquist and Breuning 2009). Even though subsequent works have used multidimensional data analyses[1] to compare observed organization and performance characteristics against the *a priori* ideal types, this approach remains highly dependent on the *a priori* definition of each model's overall mode of coordination and its pattern of economic performance. As explained in Chap. 3, developing countries institutional systems cannot be reduced to a limited number of overall governance and performance varieties that could be defined *a priori*. Emerging capitalisms are likely to be heterogeneous, hybrid and transitional, with their organizational principles being highly mixed. This is why we test the validity of our models by describing their main institutional complementarities, that is, by addressing the second of the three conditions listed above.

Overall, complementarities, and possibly other weaker compatibilities, contribute to the resiliency of the core features of each institutional model. Institutional systems are characterized by more or less highly

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[1] See Hicks and Kenworthy (2003), Hall and Gingerich (2004), Amable (2003) or Schröder (2008) inter alia. For a critical assessment of these studies, see Ahlquist and Breuning (2009).

congruent institutions across their various constitutive sectors, with this congruence achieving a certain degree of systemic consistency,[2] and therefore, of system resiliency. As explained in Chap. 3, this resiliency is less the result of an internal equilibrium than of a mixed bag of politically defined institutional hierarchies whose prevalence is eventually reinforced by various internal (natural resource endowment, geography, past choices) and external (historical and contemporary external influences) factors. Schneider (2009) emphasizes two alternative explanations for the emergence of complementarities across the different dimensions of an institutional system. Complementarities can stem from social learning, that is, economic agents replicating successful modes of institutional governance from one sector to another. But complementarities can also stem from the influence that a sufficiently powerful group has exerted on the direction of institutional change.[3] This latter pattern of institutional design implies that an overall principle of socioeconomic organization becomes prevalent because it is supported and imposed by politically powerful groups, whether they try to serve their own vested interests or because they are sincerely convinced of its social optimality. Each institutional system can, therefore, be typified by the outcome that has been imposed as a priority goal by the politically dominant coalition (Amable 2003; Acemoglu et al. 2005). The other sectors are, therefore, considered as being submitted to and supporting the priority one. This hierarchy generally gives high stability to institutional systems as long as incumbents are not replaced by another coalition which would pursue different priority goals. Alston et al. (2012) have, for example, shown that, in Brazil, the previously dominant objective of autonomous growth by industrialization has been replaced by the objective of redistribution in the late 1980s, with the objective of macroeconomic stability having progressively complemented that of social justice, without having totally supplanted it, during the 1990s.

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[2] During the 1990s, this property was enunciated by the CC and NIE authors, as well as by comparative systems scholars like Kornai (2008), who pointed to the strong congruence of the institutions organizing the allocation of resources and the forms of ownership in economic systems.

[3] Schneider (2009) argues that in *HME*s, the hierarchical principle of governance is less the result of joint gains from hierarchies realized by a majority of agents and extended to other spheres, than it is the result of the political and business elites' influence in initial institutional formation.

Hierarchies are the outcome of various forms of sociopolitical conflict, democratic or not. Their expression takes the form of a social contract, widely accepted in democratic countries and, sometimes, imposed by the minority in more authoritarian ones. Shared expectations may also reinforce existing complementarities by influencing agents' long-term strategies. Schneider (2009) argues, for instance, that expectations about macroeconomic volatility, pervasive but weak state intervention and socioeconomic inequalities are so widely shared within the Latin American population that hierarchical system legitimacy has finally been strengthened by its capacity to tame the adverse effects of these structural traits. Since they also incorporate the influence of structural factors like geography, culture and history, institutional hierarchies may equally have long-term determinants. The shape and efficiency of the various economic systems we identify are characterized by a series of structural conditioning factors such as history, culture and social values or the natural environment (geography). If these long-term structural factors have conditioned the current levels of development observed at country level, it is equally interesting to verify whether they have exerted an influence on the shape of current economic systems. These structural and cultural features act as reinforcing factors, exactly like contemporary changes in external or domestic conditions. These reinforcing factors must be analysed since doing so could help explain why institutional systems are so stable over time.

12.2   Institutional Complementarities

12.2.1   *LME* and *CME* Models

Even though our work is not primarily concerned with the models of capitalism of developed countries, several interesting points are worth being emphasized. *CME*s and *LME*s both articulate liberalized product markets, universal education systems and modern agricultural and effective environmental regulations. The *CME* and *LME* models are mainly differentiated by their labour market regulations, centrally *coordinated* for the *CME* and *deregulated* for the *LME* and, to a lesser extent,

by their financial systems, *bank-oriented* for *CME* and *market-oriented* for *LME*. This means that both *LME* and *CME* exhibit strong but specific complementarities at the core of their system. *LME*s are based on the articulation of a *mature finance* system, *liberalized labour* and *product market* and *liberal social protection*. *CME* systems are based on the interplay of a *coordinated labour* market, *liberalized product markets* and *decommodified social protection*.[4] Not only do our results confirm Hall and Soskice's (2001) assumption of a bipolarization of OECD economies into *Liberal Market Economies* and *Coordinated Market Economies*, they also provide a statistical foundation for their *ex-ante* typology. We have been able to complement existing works on OECD capitalisms since we find that, although *CME* and *LME* have developed fairly similar education (*universal-democratic*) and competition (*liberalized*) models, they tolerate dissimilarities as regards their agriculture and environmental regulation. Whereas *LME*s do not share a similar model of agriculture, *CME*s generally have highly formalized and productive agricultural systems. On the other hand, high levels of effective environmental regulation are more pervasive in *CME*s than in *LME*s. Our findings, therefore, indicate a promising hierarchy among those institutional sectors that differentiate between the various forms of OECD capitalism. Labour market, financial and, to a lesser extent, social protection institutional outcomes, come first. Education, product markets, environment and agriculture appear as secondary, more marginal, dimensions of heterogeneity and, rather surprisingly for the latter two dimensions, they do not vary significantly across our two varieties of mature capitalism.

12.2.2 *Globalization-Friendly* Model

Globalization-Friendly countries, interestingly, articulate various combinations of deregulated labour and product markets, as well as liberal

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[4] Whereas *CME* is typified by *decommodified* social protection, *LME* countries are not typified by one unique social protection model. Although European countries have tended to adopt a decommodified model, Australia, New Zealand, Switzerland and the USA have chosen more Liberal social protection schemes. Equally, *CME* countries have two finance sector models, Mature for Germany, Luxemburg, Netherlands, Spain and Sweden, and Bank-oriented for the other members of the cluster.

social protection, with high degrees of state intervention in education and finance. Core *de facto* complementarities can be observed between *liberal labour market*, *liberal social protection* and *export-oriented educational system*. Most *Globalization-Friendly* countries also articulate an *export-oriented product market regulation* with an *export-oriented educational system*. The *liberal labour market* provides domestic firms and foreign subsidiaries with flexible labour use. Moreover, the *Globalization-Friendly* system's reactivity to changing market or technological conditions is reinforced by a product market regulation explicitly geared towards foreign direct investment (FDI) attraction and domestic firms' integration in global value chains. *Liberal social protection* also bolsters the productive system competitiveness by limiting the extent of tax and labour costs. Since most *Globalization-Friendly* countries are relatively small, educational systems are oriented towards the exportation of skilled workers, with two network externalities possibly reinforcing the institutional system's efficiency. First, skilled labour migration stabilizes returns to human capital investment at a sufficiently high level, so that individuals and families can keep on investing in their children's education. Second, migrant remittances complement the social safety nets provided by the *liberal social protection* system. It should be remarked that a small number of emerging countries show *liberal deregulated product market* (Chile, Hong Kong, Singapore) and *mature finance* systems (Hong Kong, Malaysia, Singapore and South Africa) coalescing with the *liberal labour market* regulation and *liberal social protection*, thereby exhibiting institutional complementarities typical of *LME*s.[5]

The *Globalization-Friendly* model appears to match partially the business-oriented model identified by Pryor (2006) for 6 out of the 41 developing countries of his 1990 sample (Chile, Korea, Malaysia, South

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[5] Interestingly, when the classification is implemented on five groups instead of six, Clusters 3 and 4 merge as a "super middle-income group", and three East Asian countries, formerly clustered as *Globalization-Friendly* (Malaysia, Hong Kong and Singapore), fall into the *Liberal Market Economies*. Such a shift signals that those three countries have more similarities with developed *Liberal Market Economies* than with the average middle-income country. It also confirms that the *Globalization-Friendly* model is a possible stage of a trajectory of convergence, for some emerging economies, towards the *LME* models. That assumption, together with the trajectories of the *Statist* (*Resource Dependent*) and *Hybrid-Idiosyncratic* emerging capitalist models, are further analysed in Chap. 13.

Africa, Taiwan and Thailand). These countries are differentiated by "*their greater freedom from product market regulations, lower barriers for starting new businesses, less legal protection of workers and their employment, bargaining for wages at the enterprise level (rather than at the industry or national level), more shareholder rights in comparison to those of management, more equal distribution of agricultural land, greater comprehensiveness of accounting standards for business, a larger financial sector (in comparison to the GDP) and a larger role of the stock market in enterprise finance than in the other countries*" (Pryor 2006: 86).

In 2006, although Korea had definitively converged towards *LME*, the remaining countries (Chile, Malaysia and South Africa[6]) were, as explained above, among the *Globalization-Friendly* countries that have proceeded to set up institutional complementarities in the matter of *LME*. Our *Globalization-Friendly* system shows, however, deeper connection to the various dimensions of globalization (trade, migration, FDI, finance) than Pryor's business-oriented model. The *Globalization-Friendly* model is more explicitly based on outward-orientation strategies, namely, countries that have chosen to integrate their economic system in the globalized economy, with the pro-competitiveness effect of all sectoral dimensions of regulation being clearly self-reinforcing. Therefore, the *Globalization-Friendly* model shows *de jure* progressive complementarities.

12.2.3   *Statist* (*Resource Dependent*) Model

The *Statist* (*Resource Dependent*) model features highly complementary sector-specific types of regulation: the core observed complementarities concern *traditional agriculture*, *paternalistic labour regulation* and *idiosyncratic* education. Two sectoral modes of regulation, typical of *Informal* (*Weak State*) models, the *statist protected* competition and *embryonic* finance, also characterize the *Statist* (*Resource Dependent*) model, confirming the high level of state control over all economic spheres. Since a large share of the population relies on agricultural or natural (oil, minerals) resources, State control over the economy is exercised through a

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[6]Taiwan is not included in our sample.

combination of livelihood-supporting redistribution and the heavy regulation of labour, capital and product markets. The latter impedes, in turn, the emergence of new and productive industries that could reduce a country's dependence on commodities and increase the purchasing power of a growing middle class. Unsurprisingly, the *biodiversity-focused* environmental regulation is dominant in countries for which natural resources constitute a key resource for the whole economy.

Our *Statist* (*Resource Dependent*) model shows close similarities with the *Natural state* model (North et al. 2009) characterized by limited access to political and economic organizations. The *Statist* (*Resource Dependent*) model exhibits the lowest scores of effective constraints for the executive, stability and independence of organizations (including the state) and state degree of control of civil and military violence.[7] Democracy scores are also lower for the *Statist* (*Resource Dependent*) model than for the other models of emerging capitalism. However, the *Statist* (*Resource Dependent*) model also shows features of the *Redistributive State* model analysed by Besley and Persson (2011), since the *transfers and subsidies* variable, which partially refers to public transfers towards the poor, exhibits significantly higher levels for this model, therefore suggesting that redistribution is a strong feature. Most of the countries classified as *Statist* (*Resource Dependent*) redistribute the revenue drawn from their commodity (often primary) exports in order to support the basic needs of their large population. It should be emphasized that a *Statist economic system* which included, in 1990, Egypt, Jamaica, Kenya, Lebanon, Mauritius, Sri Lanka, Trinidad and Tunisia, has also been identified by Pryor (2006). These countries are typified as having more educated workers, a higher government share of total consumption, greater importance of state-owned enterprises, less openness to external capital flows, higher concentration of banks, and higher union density (share of non-agricultural workers in labour unions) than the other nations of his developing country sample. Egypt, Sri Lanka and Tunisia also fall into our *Statist* (*Resource Dependent*) category. As in Pryor's *Statist* model, our variant is

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[7] See the average values of Gollwitzer Franke and Quintyn (2012) scores (D1, D2 and D3) in Table 12.2 of the Appendix of this chapter.

characterized by high levels of direct or regulatory state intervention in labour, capital and commodity markets. The *Statist* (*Resource Dependent*) model relies more explicitly on the availability of natural resources (oil, minerals and agricultural land), with these natural resource endowments having led to a specific mode of redistributive and authoritative-paternalistic political economy, which is absent from Pryor's *Statist* model. Our *Statist* (*Resource Dependent*) model also shows clear commonalities with the *Clientelist* or *Patrimonial* subtypes of *Statist* models that are discussed by Becker (2009) as possible new ideal-types of emerging capitalisms. Those two variants of the *Statist* model both show strong linkages between the business and political spheres, with the *Patrimonial* variant incorporating the additional feature of centralized political domination.

The *Statist* (*Resource Dependent*) model, therefore, exhibits *de jure* complementarities that can be positive when economic development consists in escaping the poverty trap by accumulating capital and infrastructure, but which can prove negative whenever economic development requires institutions that are favourable to innovation and human capital accumulation. Recent papers have argued that some middle-income countries may be stuck into a middle-income trap because they have been able to overcome the various institutional, economic or political drags that are slowing down productivity, which in turn precludes their catch-up with higher income economies (Eichengreen et al. 2011, 2013; Agénor et al. 2012; Felipe et al. 2012. According to Felipe's et al., (2012) estimations, in 2010, nine out of the thirty countries in the middle-income trap were located in Middle East and North Africa (MENA), eleven were Latin American and only two were Asian. Four of the nine MENA countries (Egypt, Syria, Tunisia and Yemen) have been confronted with radical political protest demonstrations very recently. Various arguments have been advanced to explain why countries fall into the middle-income trap: rising wages, declining competitiveness, slow structural change compared to rising skills and expectations, high inequality, weak private sector, difficulties in shifting from an accumulation-based to an innovation-based growth pattern and various institutional inadequacies. Many of these symptoms seem to be particularly well-suited to certain MENA *Statist* (*Resource Dependent*) countries.

12.2.4 *Informal* (*Weak State*) Model

The *Informal* (*Weak State*) model is certainly the most homogenous of all our economic systems, with each of the seven typical modes of sectoral regulation (*statist protective product market* regulation, *informal labour market*, *social insecurity*, *embryonic finance*, *neglected education* system, *dualistic agriculture* and *weak environmental governance*) significantly coalescing together. This exclusive relationship bears no exception, and the seven above-mentioned models of sectoral governance form a deeply integrated and internally coherent institutional system. Common resource use and land rights are badly formalized for most of the population who survive in low productive agricultural or urban informal sectors. The emergence of formalized modern activities is hindered by inefficient (labour) or incomplete (capital) factor markets. Likewise, both heavy product market protection and regulation also constrain the emergence of private entrepreneurs. On the other hand, state capacity to limit microeconomic vulnerability by redistribution is limited: education is neglected and there is no social protection. Governments are less constitutionally constrained than in the other clusters, and investment in public goods remains low because of its low potential returns for political regimes. Hence, as emphasized by Besley and Persson (2011) in the case of their weak state, our *Informal* (*Weak State*) model shows low ability and resources to limit sociopolitical violence, efficiently regulate the economy and invest in public goods. Since this internal coherence is based on negative complementarities, *Informal* (*Weak State*) countries may be trapped into a low-level poverty trap, with network externalities between the different dimensions of institutional governance having an adverse effect on economic development. Complementarities are thus both *de facto* and regressive. Our *Informal* (*Weak State*) model is close to the traditional economic system that Pryor (2006) characterized in terms of a bad legal environment for market activity combined with a relatively small stock market role. Because of their lower levels of economic development, such countries also feature more government regulation, higher barriers for starting new businesses, lower union density, more poorly educated workers, less security for contracts, less protection from governmental expropriation, as well as a smaller financial sector.

12.2.5 *Hybrid-Idiosyncratic* Model

Our analysis has generated a group of middle-income countries, labelled *Hybrid-idiosyncratic*, that do not fit with the *Informal* (*Weak State*), *Statist* (*Resource Dependent*) or *Globalization-Friendly* models. The group brings together countries that are primarily characterized by the fact that they are highly singular in two respects. They either (1) present hybrid systems of area-related types, or (2) are made up of a majority of indistinct area-related types. This means that each of these countries has set up its institutional system in a very singular way; not only is the *Hybrid-Idiosyncratic* cluster differs radically from the other clearly differentiated ones, but each of the countries in that cluster also differs significantly. Nonetheless, three *idiosyncratic* types of sectoral governance (labour, product market and agriculture) tend to be more regularly articulated across the countries of this group. This means that countries that adopt original regulations tend to do so for the main sectors governing production (agricultural and industrial). It should be noted that these three *idiosyncratic* types are also frequently associated with *informal social protection*. This suggests that, in *Hybrid-Idiosyncratic* institutional systems, social protection predominantly relies on private transfers, notably those originating from migrant workers.

Indisputably, these institutional systems are characterized by *de facto* complementarities, namely, types of sectoral governance—such as a decentralized market and centralized statist governance—that should not have been articulated, since they are based on contradictory logics. Whether these institutional configurations are regressive or progressive is highly context-specific. Brazil and the Philippines are two interesting examples of *Hybrid* capitalisms. The Brazilian system groups together types of sectoral governance that are characteristic of the four different models. Each sectoral type of regulation can be understood in terms of the economic history and geography of the country. The Brazilian system has inherited strong complementarities coming from the previous import substitution period: for instance, both the product market and the labour markets are governed by significant levels of state intervention. Equally, the idiosyncratic agricultural governance may be explained by the distance between the archaic structure of land ownership and modern

productive agriculture. It should be noted that Brazil has already been described by Doktor (2010) as having adopted an "out-of-equilibrium" hybrid form of capitalism. As for the Philippines, their model is somewhat different, since it combines *Globalization-Friendly* style institutional types, like *liberal labour market* and *export-oriented product market*, with an *informal remittance-based social protection* and *idiosyncratic* regulations in *agriculture*, *education* and *finance*. That configuration reveals that the Philippines have sought to integrate their manufacturing sector into the Asian regional division of production, with their product-market regulation being geared towards export competitiveness and FDI attraction, and their labour market being flexible. The country has, however, also maintained strong particularities concerning agriculture, education and finance, three strategic sectors for its population's livelihood, social expectations and socioeconomic stability.

Referring to systems in the case of *Hybrid-Idiosyncratic* countries may come over as a form of over-determination for those scholars who consider these configurations as transiting from one fully-fledged model to another. *Hybrid* systems may, therefore, prove inadequate since they do not exhibit one or the other sets of complementarities to be observed in the case of the alternative fully-fledged models. However, if these countries were really in transition from one model to another, more homogeneity should be apparent across the different sectors and a dominant trait should also emerge, showing the institutional model towards which the country is converging. This is not the case, since with one exception[8] no country can be clearly characterized by an emerging dominant type of regulation.

At this point, we could ask ourselves whether our different models have been driven by different institutional hierarchies, that is, by specific goals that have been considered as priorities by the politically dominant groups of the population? Equally, what reinforcing factors have contributed to stabilize these institutional configurations? All these elements will

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[8] The only exception is Costa Rica, with its three sectoral governance types that are typical of the *Statist* (*Resource Dependent*) model.

be discussed in relation to the analysis of institutional hierarchies and of their stability across models.[9]

12.3 Institutional Hierarchies

In the case of the *Globalization-Friendly* model, greater emphasis has been placed on the objective of international integration than on that of equity or stability. The reverse may be true for *Statist* (*Resource Dependent*) systems that appear to have given priority to socioeconomic cohesion, notably by using redistribution and high regulation of markets. The underlying political patterns are consistent, since democracy, which is more likely to spur innovation and diversification, as shown by Cuberes and Jarzmanovski (2009), is higher in *Globalization-Friendly* models than in other developing country clusters. Average poverty was significantly reduced, during the 1990s and 2000s, in *Statist* (*Resource Dependent*) countries. *Hybrid-Idiosyncratic* countries significantly lowered inequality during the 2000s, with high levels of remittance possibly providing one explanation for this recent trend (Koechlin and Leon 2007; Fajnzylber and López 2008). Giving priority to trade integration does not necessarily mean, however, that the objective of social inclusion needs to be sacrificed. First, the *Globalization-Friendly* model shows lower income concentration (as measured by Gini coefficients) than the other models of capitalism, even including *LME* and *CME*. Trickle-down mechanisms and private transfers may well explain this redistributive shift in countries where state transfers are significantly lower than elsewhere, and social protection predominantly liberal. Second, the *Globalization-Friendly* model has higher-than-average levels of ethno-linguistic fractionalization, a frequently used indicator of social cohesiveness. The sociopolitical

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[9] The method applied in this chapter is simple and straightforward. For each variable of interest, we compute the six group average values, and then test for equality of means between our various groups. Table 12.2 in the Appendix of the chapter reports both the means difference tests results and the direction of the difference, whether the average group's value for a given variable is significantly below (−) or above (+) the sample average. No indication means that the group's average value for the observed indicator is not significantly different from the sample average.

system of *Globalization-Friendly* countries seems, however, to have successfully managed to maintain social cohesiveness since, like *CME*s, they were involved in a lower-than-average number of armed conflicts, whether external and internal. The *Globalization-Friendly* countries have significantly higher values for the three scores of state modernity than the three other developing countries groups (Informal, Statist and *Hybrid-Idiosyncratic*), with the score D1 measuring the existence and enforcement of rules for the rulers and the importance, D2 the permanence and independence of organizations (including the state), and D3 the degree of control of civil and military violence by the state.[10] As regards constitutional characteristics, *Globalization-Friendly* countries have, on average, lower levels of proportional representation and of governmental decentralization than the other groups, suggesting that their political system is mainly based on a centralized electoral system. This feature is not surprising, given that *Globalization-Friendly* countries are, on average, small countries. Consequently government stability is significantly higher for *Globalization-Friendly* countries than for all the other groups, with positive effects on FDI attraction and macroeconomic stability.

When priority is given to fairness and justice, as in *Statist* (*Resource Dependent*) countries, strong vectors of reinforcement can be identified. The perception that corruption is attached to deregulated capitalism drives societies in which fairness is hierarchically dominant to favour higher state intervention in economic regulation (Di Tella and Mc Culloch 2009). Equally, Aghion et al. (2010) have shown that distrust tends to increase with the extent of uncivil behaviour, thereby leading citizens to claim higher levels of state regulation so that the negative

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[10] In their thought-provoking book, North et al. (2009) explain that socioeconomic development requires the fulfilment of three political conditions: (1) constrained elites and independent justice, (2) the stability and permanence of all organizations, including that of the state itself, and (3) the political control of violence. Gollwitzer Franke and Quintyn (2012) have computed three scores (D1, D2 and D3) measuring respectively the existence and enforcement of rules for the rulers and the importance, permanence and independence of organizations (including the state) both characterizing the shift from personal (dependence) to impersonal (independence) relationships, and the degree of control of civil and military violence by the state. Their D1 index simply brings together the constraints on the executive (and other related measures), the independence of the judiciary and the government respect of contracts and property rights (and other related measures). Their D2 index includes indicators of political stability with more original indicators of the stability and independence of organizations. See Table 12.2 for the clusters' average values of these indicators.

externalities generated by uncivil entrepreneurs (pollution, opportunistic behaviour …) can be limited. One key result of their work is that demand for higher regulation increases with distrust, even at the price of higher corruption by the regulators. *Statist* (*Resource Dependent*) model institutional complementaries are thus reinforced by the social preference for fairness, which implies that the optimal level of corruption is not simply the absence of corruption. In fact, corruption is used as a means to grease the wheels of heavily regulated economies (Shleifer and Vishny 1993; Aidt 2003).[11] This feature has been described in the case of numerous Middle East and North African and Asian economies classified as *Statist* (*Resource Dependent*) systems.

In what concerns trade, the *Statist* (*Resource Dependent*) model has, on average, more concentrated, less diversified and more dissimilar export and import structures.[12] *Statist* (*Resource Dependent*) countries have significantly higher levels of oil export than the other clusters. Although *Statist* (*Resource Dependent*) countries exhibited the highest growth rate of the agricultural labour force over the 1990s and 2000s, they had significantly lower levels of commodity export, with the highest levels being reported for the *Informal* (*Weak State*) countries. This means that these densely peopled countries continue to rely significantly on agriculture for sustaining their population's livelihood.

Moreover, the group shows significantly higher levels of state transfers to the economy than the other clusters, thereby suggesting that redistribution is a vector of livelihood securitization. As a consequence, the *Statist* (*Resource Dependent*) model experiences lower income concentration than the other models of capitalism, including *LME* and *CME*. The explanation for this good distributive feature differs, nevertheless, from that proposed for the *Globalization-Friendly* model, since the *Statist* (*Resource Dependent*) countries have tended to reduce inequality through natural

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[11] Alexeev and Song (2013) have, however, provided firm-level evidence in support of the assumption that more competition, and therefore less regulation, of product market tends to increase the cost-reducing type of corruption. Hence, corruption is not always complementary to high regulation. Likewise, Delavallade (2012) shows for a sample of Maghribi firms that although administrative corruption increases with the tax burden, state capture is caused by low levels of property rights enforcement, with less competitive firms investing more in corruption practices than more competitive ones.

[12] This is also true, however, of the *Informal* (*Weak State*) and *Hybrid-Idiosyncratic* models.

resource-rents redistribution, whereas trickle-down market mechanisms and private remittance-based have been central for the latter. As a consequence, average poverty indexes were significantly lower, during the 1990s and 2000s, for the *Statist* (*Resource Dependent*) than for any other model, including *CME* and *LME*.

As for political features, the *Statist* (*Resource Dependent*) model has significantly lower-than-average levels for D1, D2 and D3 (respectively rule of law for all, government stability of organization and the state and political control of violence). This means that the cluster's political economies are closed to the *Natural State* model which North et al. (2009) describe as systems governed by patron–client personalized relationships, with the economic and political elites drastically limiting access to both resources and organizations. Equally, the *Statist* (*Resource Dependent*) model is characterized by a higher share of the fiscal revenues coming from sub-national levels than for the other clusters of developing nations. This feature can be related to the bigger size of the countries of this group. Whereas the *Statist* (*Resource Dependent*) model does not show higher-than-average values of the KOF indicator of integration to globalization,[13] it is, nonetheless, more politically connected to globalization (higher KOF indicator of political integration) than is the case for all the other developing country clusters. *Statist* (*Resource Dependent*) economies actually have access to a level of political globalization, which is akin to that of CM and LM economies. This suggests that those *Statist* (*Resource Dependent*) capitalisms, at least the biggest amongst them, are emerging as powers on the political scene, before having reached a similar status in terms of economic, social or cultural influence, since for all those three dimensions, the group shows an average value of its indicator that is significantly lower than the sample mean.

As for *Informal* (*Weak State*) systems, their negative complementarities feed self-sustaining vicious circles, which articulate high levels of

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[13] The KOF indicator is a composite index which articulates three subcomponents: economic globalization (actual trade and capital flows, trade and investment restrictions), social globalization (personal telephone, mail and tourism contacts abroad, information flows, cultural proximity), and political globalization (foreign representations, International Organizations membership and international treaties, and participation in international missions) (Dreher 2006). See the clusters' average values in Table 11.4 of Chap. 11 in Appendix.

poverty and inequality, low levels of democracy and low incentives to invest in physical and human capital. Uneven income distribution and the persistence of poverty impede market expansion and reduce the state's fiscal and legal capacities, with adverse effects on private sector investment in physical capital. As a consequence, goods and labour markets are strongly dualistic, with the majority of the workforce being underemployed in informal or in low productive non-traded activities, be they rural or urban. Minorities working in the modern sector and consuming modern goods have only small connections with the traditional sector, thereby limiting trickle-down effects and the ensuing incentives to invest in human capital for the poor. Both overall unemployment and that of young males are lower for the *Informal* (*Weak State*) model than for the other ones. Likewise, the former records the highest female participation rate in the labour force. These features inform about the main function of informality, namely, providing low-productive jobs for the broadest share possible of the population.

Since States in *Informal* (*Weak State*) models are too weak, they do not have the necessary fiscal and legal capacity to regulate their mainly informal economy, in which trust is essentially produced by personal ties within communities and networks (Fafchamps 1996). By limiting access to finance for the poor, however, embryonic financial sectors further aggravate economic inequality in *Informal* (*Weak State*) countries. This provides economic elites, in turn, with the material conditions for durably controlling *de facto* political power. North et al. (2009) and Acemoglu and Robinson (2012) have explained such perverse cumulative mechanisms by the long-term persistence of non-inclusive or extractive institutions bolstering *de facto* political power and limited access non-democratic orders, with limited incentives to invest in the public goods that are necessary to economic development.

Besley and Persson's (2011) typology of States opposes *Weak states*, *Redistributive states* and *Common-interest states*, mainly according to their differences in terms of inclusive democracy and political stability.[14] The

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[14] The particular type of state which arises depends, according to their model, on (1) cohesiveness, i.e., the degree to which political institutions are consensual, including the existence and enforcement of checks and balances, and/or of minority representation, and (2) if cohesiveness condition does not hold, on the degree of political stability, which requires that the equilibrium level of

Rice and Patrick ([2008](#)) Index of State Weakness includes the various dimensions analysed by Besley and Persson ([2011](#)). This index has been averaged for each of our developing country clusters.[15] Unsurprisingly, the mean value is lower for our *Informal* (*Weak State*) group, indicating that the state is significantly weaker for those countries, and is significantly higher than the overall average for both the *Globalization-Friendly* and *Coordinated Market Economies*. Likewise, the *Informal* (*Weak State*) model (as well as the *Statist* (*Resource Dependent*) model) has, on average, lower *de facto* scores of democracy (Polity IV institutionalized democracy score; ICRG Democratic accountability) than the *Hybrid-Idiosyncratic* and *Globalization-Friendly* models. Freedom of press, which is an important check on incumbent economic and political rulers, is also lower for the *Informal* (*Weak State*) model, which records the highest levels of government ownership of the press and, like the *Statist* (*Resource Dependent*) model, the lowest Freedom house ratings for freedom of press. The *Informal* (*Weak State*) model also has significantly lower than average levels for the D1, D2 and D3 indicators (which respectively assess the rule of law for government, the stability and independence of organizations and the political control of violence). Over the last two decades, however, the highest levels of poverty are to be found in both the *Hybrid-Idiosyncratic* and *Informal* (*Weak State*) models respectively, with their social protection system tending to be less redistributive than that of *Statist* (*Resource Dependent*) countries.

Obviously, such systems of negative complementarities are not the expression of social preferences. They may correspond, instead, to the adverse effect of excessive economic and political transaction costs and

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political turnover be low. If cohesiveness holds, the *Common-Interest State* obtains, whatever the degree of political stability. The *Redistributive State* is characterized by the respect of the political stability condition, and the non-respect of the cohesiveness condition. The *Weak State* is neither socially cohesive nor politically stable.

[15] That index brings together various sets of dimensional indicators: GNI per capita, GDP growth, income inequality, inflation and regulatory quality for the economic basket; government effectiveness, rule of law, voice and accountability, control of corruption and freedom for the political basket; conflict intensity, gross human rights abuses, territory affected by conflicts, incidence of coups and political stability and absence of violence for the security basket; and child mortality, access to improved water and sanitation, under-nutrition, primary school completion and life expectancy for the social welfare basket.

insufficient levels of trust between poor and non-poor sociopolitical groups, with no intermediary group being sufficiently strong enough to limit potential for social conflictuality. Acemoglu and Robinson (2006) have, for example, shown how the emergence of a third intermediary social class helps consolidate democracy, notably by reducing the conflict between rich and poor, and triggering growth-enhancing investment in human capital which, in turn, stabilizes democratic capital (Doepke and Ziliboti 2008). In the absence of such intermediary social groups, elites may themselves find political and economic advantage in underinvesting in public goods that might, otherwise, have triggered both private accumulation and political participation, therefore possibly breeding social contestation of the prevailing equilibrium. Galor et al. (2009) have, for example, shown that high concentration of land ownership has tended to limit the establishment of human capital-promoting institutions in various Indian regions, with adverse long-term effects on growth.

As for the *Hybrid-Idiosyncratic* model, hierarchies are more confused since the overall governance feature is, by definition, absent or hidden by the hybrid nature of economic systems. One could argue that experimentation is the dominant institutional form adopted by the countries belonging to this cluster. This statement could, however, lead us to over-interpret the general logic at work behind this cluster. As for government stability, the *Hybrid-Idiosyncratic* significantly underperforms. It should be remarked that the *Hybrid-Idiosyncratic* model started to record significantly lower inequality levels than the other groups during the 2000s, with high levels of remittance potentially playing a big part in smoothing market-driven inequality (Koechlin and Leon 2007; Fajnzylber and López 2008). There are more former Spanish and Portuguese former colonies amongst the *Hybrid-Idiosyncratic* countries. The *Hybrid-Idiosyncratic* does not show higher-than-average levels for government instability, internal and external conflicts, religion politics, ethnic tensions and democratic accountability (ICRG). Presidential regimes are more frequently observed in *Hybrid-Idiosyncratic* models. *Hybrid-Idiosyncratic* countries show higher levels for all three indicators D1, D2 and D3 than the *Statist* (*Resource Dependent*) and *Informal* (*Weak State*) models.

12.4   Long-Term Reinforcing Factors

Geography and history are the main long-term factors influencing the shape and stability of institutional systems. Shared beliefs may also have been important sources of influence for some countries or models.

Geography's long-term influence on institutional forms can proceed through various channels. Geographical localization and climatic characteristics certainly have large direct effects on income levels and income growth, through their effects on transport costs, disease burdens, and agricultural productivity. Gallup et al. (1998) notably find that the geographical regions that are not conducive to modern economic growth have such common features as high population density and rapid population increase, location in areas distant from the coast and/or with high disease burden. Natural resource endowments, as well as the physical and climatic factors conditioning agricultural productivity and human health have, however, an indirect impact on the quality of institutions and state policies governing access to education and productive assets. Gallup et al. (1998), Sachs and Warner (2001) and Acemoglu et al. (2001) have also provided empirical and historical evidence that geographical factors, like remoteness, bad sanitary conditions or ruggedness also have indirect effects on economic outcomes via their influence on economic policies and institutions. In Central America and the Caribbean islands, climate and soils were more propitious to large plantation agriculture, thereby leading to the setting up of extractive—often based on slavery—institutions by the elites (Engerman and Sokolof 2002; Nunn 2008; Bruhn and Gallego 2012).

The fact of a country being landlocked does not seem to have influenced the shape of its capitalist model (there is no significant mean difference between clusters). Equally, the percentage of desert area does not differentiate our four groups of developing countries. Other geographical features, however, like remoteness and distance from a coast are significantly higher in *Informal* (*Weak State*) countries than elsewhere. Likewise, physical characteristics, such as soil quality or arable land area, are lower for the *Informal* (*Weak State*) economies. The *de facto* negative complementarities of this model could well have been reinforced by these geographical characteristics. Whenever arable land is scarce or ownership more concentrated,

extractive institutions tend to be observed more frequently. Unsurprisingly, the European settler mortality rates at the time of colonization were the highest for *Informal* (*Weak State*) countries, and those countries still have the highest prevalence of malaria. The colonizers tended to establish their most extractive institutions in those bad soil quality and high disease environments (Acemoglu et al. 2001). Moreover, countries of the *Informal* (*Weak State*) model were significantly more plagued by slave exporting than any other cluster. Even though the causality seems to run from high slave trade to low economic development (Nunn 2013), it is arguable that highly informal economies of this cluster may initially have lacked human and fiscal resources to resist the organized predation of a sparsely distributed population. Slavery may, therefore, have reinforced those countries' inability to escape from extreme institutional poverty traps.

Those extractive institutions increased, in turn, socioeconomic and political inequality by concentrating *de facto* power in the hands of a small group having strong economic and political interests in the persistence of inequality (Acemoglu and Robinson 2006, 2012). While the ensuing high poverty impedes domestic market expansion, the low levels of human capital limit the potential for sectoral and political change. State capacity to invest in educational infrastructure is thus limited both by the lack of fiscal resources and the unwillingness to help the poor to escape from poverty traps. Moreover, by exacerbating social friction and conflict, resource scarcity tends to increase social and policy instability in poor countries (Barbier and Homer-Dixon 1996). The potential for sociopolitical conflict levels may further reduce the ability and willingness of a weak state to invest in public goods. It is worth remarking, however, that *Informal* (*Weak State*) and *Globalization-Friendly* models are associated with the lowest latitudes. This suggests that proximity to the tropics is not an inescapable curse for developing countries, since dynamic and trade-integrated emerging economies share common localization characteristics with poor and marginalized countries. In fact, initial inequality conditions, institutional path dependence and critical junctures may help explain the different institutional trajectories of countries with tropical localization.

Hence, geophysical factors seem to be particularly adapted to explaining the fact of being developed or non-developed (Sachs and Warner 1995; Malik and Temple 2009); they also help explain the stability of *Informal*

(*Weak State*) capitalist systems. Likewise, other geophysical characteristics may have played a role as reinforcing factors for a certain number of countries in the *Hybrid-Idiosyncratic* model. *Hybrid-Idiosyncratic* countries generally present significantly higher levels of ruggedness than for other clusters, with the *Informal* (*Weak State*) and *Globalization-Friendly* models showing the lowest levels. Nunn and Puga (2012) have shown that ruggedness had an indirect positive effect on income by limiting the extension of the slave trade, and its adverse effects on economic development. This could suggest that the difficulty of exploiting their hinterland would have led *Hybrid-Idiosyncratic* countries with high ruggedness levels to build atypical institutional systems. They were neither oriented towards integration in world markets, because of high domestic transport costs, nor organized around a powerful state, because of low administrative control over the whole territory. This finding, however, only holds for Africa, and this continent does not include many *Hybrid-Idiosyncratic* countries.

Natural resources are also often considered as exerting an influence on the design of institutional systems. Oil resources generally lead to more interventionist states, with the rents drawn from natural resource exports being more or less extensively redistributed to the population. Various studies have demonstrated that resource-abundant countries tend to have bad institutions (Sachs and Warner 1995, 2001). Ross (2001), Wantchekon (2002) and Ramsay (2007) have all shown that high oil prices or endowments tend to hinder the establishment of democratic institutions. Oil exports, however, also influence economic institutions and the form of state economic intervention. Besley and Persson (2011) have also demonstrated that high dependence on natural resource export increases the redistributive nature of the state and reduces the value it attributes to the provision of public goods. In order to stabilize their domination over natural resources, rent-dependent redistributive states generally establish strong regulations in the various economic sectors. Gurievy et al. (2009) have, for example, provided evidence that higher oil prices lead to more nationalization. Unsurprisingly, *Statist* (*Resource Dependent*) countries have significantly higher levels of oil endowment and reliance than the other groups of countries.

Since the largest emerging or developing economies (China, Egypt, India, Mexico, Pakistan, Russia and Turkey) are all classified as *Statist*

(*Resource Dependent*), physical and demographic size characteristics could have led to the formation and long-term stabilization of this type of economic system.[16] Bigger countries are traditionally considered to be less open to external trade than smaller ones (Alesina and Wacziarg 1997). Accordingly, the relationship between country size and the extent of state interventionism is likely to be positive.[17] By using alternative and complementary indicators of government interventions, such as state ownership, price controls, expropriation of property, the likelihood of contract repudiation, as well as distortionary trade barriers, Garen and Trask (2005) find convincing evidence that, on average, less open economies are more interventionist and have a bigger government. They also find that higher levels of these forms of government can be observed in countries with greater exposure to trade shocks. Table 12.2 shows that the countries classified as *Statist* (*Resource Dependent*) generally exhibit higher degrees of state interventionism than *Informal* (*Weak State*) countries which are affected to a larger extent by the various elements undermining state capacities: civil conflicts, war, ethnic and religious fractionalization, inequality, or informality. When the perimeter shifts from BRICs to all emerging economies, however, the average size of countries drops significantly, and some of the dominant characteristics change. As an illustration, the G26 sample of emerging economies shows institutional models that tend to be dominated, like the BRICs, by the *indistinct* education model, the *focus on biodiversity* environmental model and the *intermediate bank-oriented* system, but they are best described as *export-oriented deregulated* competition regimes rather than *statist protected* ones. Smaller countries are generally more open than bigger ones, but we find here that they are also less regulated. Hence, bigger countries tend to be both less open and more statist than smaller ones. In the biggest *Statist*

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[16] Out of the nine emerging countries with a size exceeding one hundred million inhabitants (Bangladesh, Brazil, China, India, Indonesia, Mexico, Nigeria, Pakistan and Russia), three (Bangladesh, Indonesia, and Nigeria) are classified as *Informal* (*Weak State*), Brazil as *Hybrid-Idiosyncratic*, and the five remaining countries as *Statist* (*Resource Dependent*).

[17] From a theoretical point of view, globalization and the process of integration to world markets is expected to put competitive pressure on tax and regulatory structures, thereby reducing governmental activism (Alesina and Perotti 1997; Rudra 2007; Epifani and Gancia 2009). This suggests that more economic integration may reduce tax rates, eventually leading to smaller governments and reduced state interventionism in the economy.

(*Resource Dependent*) countries, like China, India or Russia, which assemble highly ethnically or religiously heterogeneous states and provinces,[18] the need for state control over the entire territory requires an extensive administrative system that is endowed with large regulatory attributions. Red tape and corruption generally go hand in hand, generating levels of distrust that may, in turn, trigger demand for more state regulation, as shown in Aghion et al. (2010). This is particularly so in countries having transited from a socialist to a market system, with liberalization often having increased distrust within the population (Aghion et al. 2010).

As explained by La Porta et al. (2008) or Acemoglu et al. (2001), considering legal or colonial origins proves particularly useful for differentiating institutional systems and explaining their long-term stability. Equally, Besley and Persson (2011) have also shown that current legal and fiscal state capacities are impacted by past demand for common public goods, the degree of inclusiveness of past political institutions, and legal origins. Countries of the *Globalization-Friendly* type of capitalism were former British colonies, with their institutional system being, like the *LME* model, more influenced by the common law legal origins. *Globalization-Friendly* countries also have, on average, a higher Catholic share of the population than the other clusters of developing countries. By contrast, there are more former French colonies among countries classified as *Informal* (*Weak State*) and *Statist* (*Resource Dependent*) systems, with their legal origins being based on French civil law. The Socialist legal origin is spread over the six models, with no significant modal expression. The *Statist* (*Resource Dependent*) model has been more dominated by Spanish and Portuguese colonial powers than the other clusters. *Statist* (*Resource Dependent*) countries were also comparatively less affected by the slave trade than the average country. This latter feature is consistent with the fact that the *Statist* (*Resource Dependent*) cluster brings together the countries whose population was the largest in 1400 and which are still significantly more populated than those in the other clusters. Like all ancient civilizations, these *Natural States* had established military and

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[18]Table 12.2 shows that although the *Statist* (*Resource Dependent*) group exhibits near-average scores for external conflicts, it records significantly higher levels of internal conflicts and lower levels of democratic accountability than the other models.

economic organizations that enabled them to be sufficiently powerful to avoid their population being victims of predation (North et al. 2009). It is not surprising, therefore, that countries of the *Statist* (*Resource Dependent*) cluster have, on average, older states (measured by the state antiquity indicator of Bockstette et al. 2002) than the countries of other clusters. These mature state countries are over-represented in North Africa, the Middle East and Asia, and they include significantly more Muslims as a percentage of their population than the other clusters.[19]

12.5 Back to the Complementarities' Analytical Grid

The institutional systems of developing countries show various types of complementarities. Three of them—the *Informal* (*Weak State*), *Globalization-Friendly*, and *Statist* (*Resource Dependent*) systems—can be characterized by their own particular dominant pattern of *de facto* institutional complementarities. Although the *Globalization-Friendly* and *Informal* (*Weak State*) models clearly show respectively positive and negative *de facto* complementarities, the nature of the *Statist* (*Resource Dependent*) model complementarities are more difficult to identify. This model seems to have been adapted to the first stage of economic development, which relied on physical capital accumulation and the reduction of mass-poverty via public transfers and investment in health and education. The capacity of *de jure* institutional complementarities to meet the requirements of a more innovation- and quality-based phase of growth is, however, less certain. The fourth type of economic sys-

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[19] Acemoglu and Robinson (2012: 56) argue that the Ottoman colonization might have been important in explaining why Middle East and Eastern Mediterranean countries suffered from a reversal of fortune at the turn of the Middle Ages, after having dominated the European scene since the Neolithic revolution. Modern day countries whose territory (except for sparsely populated regions) was controlled by the Ottoman Empire at some point in their history are Albania, Algeria, Bahrain, Bosnia & Herzegovina, Bulgaria, Croatia, Cyprus, Egypt, Greece, Hungary, Iraq, Israel, Jordan, Kosovo, Kuwait, Lebanon, Libya, Macedonia, Malta, Moldova, Palestine, Qatar, Romania, Serbia, Slovenia, Syria, Tunisia, Turkey and United Arab Emirates. Most of these countries correspond to the *Statist* model of capitalism, but with national variations of Natural States (North et al. 2009).

tem identified for developing and emerging market economies, the *Hybrid-Idiosyncratic*, brings together two different categories of singular economic systems whose patterns of complementarities need to be discussed at individual country level. Addressing the question as to whether these *de facto* complementarities are progressive or regressive may require looking at each country's specific performance trajectory, as we do in the next chapter. In the light of the hierarchies and reinforcing factors identified above, we can, however, try to assess the nature of the complementarities identified for our different models by using the analytical grid proposed in Chap. 3.

In Table 12.1, our emerging capitalism models are classified according to their specific forms of complementarities (*de jure/de facto*; regressive/progressive). The types of institutional complementarities that have been identified for developing countries' socioeconomic systems are predominantly *de facto*. It means that they are more experimentation-driven than directly inferred from sound theoretical grounds or inspired by the *LME* and *CME* benchmarks.

The *Statist* (*Resource Dependent*) model is the unique one that can be considered as delivering de jure complementarities, since the mix of high protection and patron–client relationship is directly inherited from the Natural State model, discussed by North et al. (2009). Although these complementary regulations of labour, capital and goods transactions may deliver positive outcomes for poor countries since they may be particularly adapted to state-led big push policies, they may turn into hindrance while countries reach middle-income levels and need to feed their subsequent growth trajectory with more sophistication and innovation.

The *Informal* (*Weak State*) model also shows strong internal de jure consistency, since it is easy to explain how informal activities and rules are used as substitute for the deficient state-enforced regulations and rules. In that case, the strong internal consistency of all dimensional regulations

Table 12.1 *De facto/de jure* and progressive/regressive complementarities

	De jure	De facto
Progressive	Low-income *Statist* (*Resource Dependent*)	*Globalization-Friendly*, *Hybrid-Idiosyncratic*
Regressive	Middle-income *Statist* (*Resource Dependent*), *Informal* (*Weak State*)	*Hybrid-Idiosyncratic*

that has been highlighted by our empirical analysis deliver regressive socioeconomic outcomes since it can block the economic development process by sticking the country into an institutional poverty trap, that is, a situation in which private and public investment are not coordinated because the economy lacks of the necessary protections and signals that make investment possible. The *Globalization-Friendly* model also exhibits strong internal consistency, but they are more guided by a process of experimentation driven by the integration to international trade and networks. In most cases, such an institutional fitness was progressively set up by an evolutionary process of trial and error, with the institutional system adapting to changes in the external environment. Externally imposed trade and capital account liberalization reforms, such as in the case of structural adjustment reforms, generally resulted in high internal inconsistency. Some countries classified in the *Hybrid-Idiosyncratic* and *Informal* (*Weak State*) clusters perfectly illustrate such situations. Other *Hybrid-Idiosyncratic* countries have experimented original institutional sets that have driven positive outcomes in terms of economic development. What differentiates the *Hybrid-Idiosyncratic* countries that succeeded from those that failed may be located in the willingness to reform and the autonomy of reforming. On the one hand, external influence is often viewed as crucial. Developing countries' governments may abide by reforms fitting to international standards either by obligation, because they have to do it to be financially helped, or for signalling reasons (Andrews 2013). In both cases, best practice institutional reforms, like privatization, fiscal rules or meritocratic and performance-based administration, are often introduced, albeit superficially, with possible deterrent medium-term functional consequences for the whole institutional system. Andrews (2013) reports that 70% of his sample of developing countries recorded lower Quality of Governance indicator scores after rather than prior to the reforms. On the other hand, domestic political leadership also conditions both the willingness to reform in depth and the autonomy to do it by the national standards. The influence of political leadership on economic performance and institutional design has recently become an emerging concern for development economists (Jones and Olken 2005; Easterly and Pennings, 2016). In that case, reforms are more deeply and time-consistently implemented, their shape is more fitted to the specificities of the national context, thereby driving durable positive functional effects (Andrews 2013).

Appendix

Table 12.2 Characterization variables by cluster [< (>) means significantly lower (higher) value than average]

Variables	Informal (Weak State)	Hybrid-Idiosyncratic	Statist (Resource Dependent)	Globalization-Friendly	Coordinated Market	Liberal Market
Geographical features						
Oil exporters (Easterly and Levine 2003)			>			
% of mineral fuels in manufacturing exports, 1995 (Treisman 2007)			>		<	<
% of mineral fuels in manufacturing exports, 2000 (Treisman 2007)			>		<	<
Non-oil commodity exporters (Easterly and Levine 2003)	>		<		<	
Landlocking (Easterly and Levine 2003)						
Degree of straightness or squiggliness of a country's border (Alesina et al. 2011)	<		<		>	
Ruggedness (Nunn and Puga 2012)	<	>		<		
Land area (Nunn and Puga 2012)	<				<	
Latitude (Nunn and Puga 2012)	<			<	>	
Longitude (Nunn and Puga 2012)					>	>

Soil (Nunn and Puga 2012)	∨				∧	
Desert (Nunn and Puga 2012)					∨	∨
Tropical areas (Nunn and Puga 2012)	∧				∨	
Distance to coast (Nunn and Puga 2012)	∧				∨	∧
Proximity to coast (Nunn and Puga 2012)	∨			∧		∧
Gemstones (Nunn and Puga 2012)		∨			∨	
Ethnolinguistic fractionalization (Easterly and Levine 2003)	∧				∨	
Latitude (Easterly and Levine 2003)	∨			∨	∧	∧
Latitude (abs. value) (Easterly and Levine 2003)	∨				∧	∧
Asia					∨	
Europe	∨		∧	∧	∧	
Central Europe	∨		∨	∨	∧	
Western Europe	∨				∧	
Oceania						∧
North America						∧
South America		∧				∧
Scandinavia			∧		∧	
Middle East	∨				∨	∧

Table 12.2 (continued)

Table 12.2 (continued)

Variables	Informal (Weak State)	Hybrid-Idiosyncratic	Statist (Resource Dependent)	Globalization-Friendly	Coordinated Market	Liberal Market
Africa	∧		∨		∨	∨
North Africa			∧			
South Africa						
Western Africa	∧					
Eastern Africa	∧					
Central Africa	∧					
Overall governance indicators						
ICRG						
Government Stability (ICRG)	∨	∨			∨	
Socioeconomic Conditions (ICRG)	∨	∨		∧	∧	∧
Investment Profile (ICRG)	∨	∨	∨	∧	∧	∧
Internal Conflicts (ICRG)	∨		∨	∧	∧	
External Conflicts (ICRG)	∨			∧	∧	∧
Corruption (ICRG)	∨	∨	∨	∧	∧	∧
Military Politics (ICRG)	∨	∨	∨	∧	∧	∧
Religion Politics (ICRG)	∨				∧	∧
Law and order (ICRG)	∨	∨			∧	∧
Ethnic Tensions (ICRG)	∨			∧	∧	
Democratic Accountability (ICRG)	∨		∨		∧	∧
Bureaucratic Quality (ICRG)	∨	∨	∨		∧	∧
World Bank Governance Indicators						
Regulatory Quality (World Bank GI)	∨	∨	∨	∧	∧	∧
Government Effectiveness (World Bank GI)	∨	∨	∨	∧	∧	∧

Political Stability and Absence of Violence (World Bank GI)	∨	∨	∨	∧	∧	∧
Voice and Accountability (World Bank GI)	∨	∨	∨	∧	∧	∧
Rule of Law (World Bank GI)	∨	∨	∨	∧	∧	∧
La Porta et al. (…)						
Enforceability of contracts (La Porta et al. 2008)	∨	∨	∨		∧	∧
Index of property rights in 2004 (La Porta et al. 2008)	∨	∨	∨	∧	∧	∧
Corruption indexes						
ICRG corruption index (2003–2007)	∨	∨	∨		∧	∧
Kaufmann corruption index (2003–2005)	∨	∨	∨		∧	∧
Transparency International corruption index (2003–2007)	∨	∨	∨	∧	∧	∧
Heritage Foundation corruption index (2003–2007)	∨	∨	∨	∧	∧	∧
GCR corruption index (2003–2007)	∨	∨	∨	∧	∧	∧
Average corruption score over the period 1996 through 2000 (La Porta et al. 2008)	∨	∨	∨		∧	∧
Firms that pay bribes (%) (La Porta et al. 2008)	∧					
Long-term historical features						
Log of the mortality rate of European settlers at the time of colonization (Treisman 2007)	∧		∨	∨	∨	∨

Table 12.2 (continued)

Variables	Informal (Weak State)	Hybrid-Idiosyncratic	Statist (Resource Dependent)	Globalization-Friendly	Coordinated Market	Liberal Market
Malaria index 1994 (Treisman 2007)	∧		∨	∨	∨	∨
Slave exports (Nunn 2013)	∧		∨		∨	∨
Former British colony (Treisman 2007)				∧	∨	∧
Distance from Indian slave market (Nunn 2013)			∧			
Distance from Saharan slave market (Nunn 2013)			∨	∧		
Distance from Red Sea slave market (Nunn 2013)				∧		
Population 1400 (Nunn 2013)			∧			
State antiquity indicator (Bockstette et al. 2002)	∨	∨	∧	∨	∧	
European descent (Nunn 2013)	∨		∨	∨	∧	∧
UK Legal Origin (La Porta et al. 2008)				∧	∨	∧
French Legal Origin (La Porta et al. 2008)	∧		∧			∨
German Legal Origin (La Porta et al. 2008)	∨				∧	
Scandinavian Legal Origin (La Porta et al. 2008)					∧	∧
Socialist Legal Origin (La Porta et al. 2008)		∧			∧	∨

	C1	C2	C3	C4	C5	C6
% of pop. speaking English or a major European language (Easterly and Levine 2012)	∨		∨		∨	∧
Democracy and constitutional features						
Rating of political rights (Freedom House)	∧				∨	∨
Institutionalized democracy score (Polity IV)	∨		∧		∧	∧
Number of consecutive democratic years between 1930 and 2000 (Treisman 2007)	∨	∨	∨		∧	∧
Constraints on executive (Glaeser et al. 2004)	∨				∧	
Autocracy (1995–2000) (Glaeser et al. 2004)					∨	
Democracy (1975–2006) (La Porta et al. 2008)	∨		∨		∧	∧
Parliamentary 2000 (Treisman 2007)	∨	∨	∨		∧	∧
Presidential 2000 (Treisman 2007)	∧	∧			∨ ∧	∨
Proportional representation (1975–2006) (La Porta et al. 2008)	∨			∨		
Party versus candidate specific voting (La Porta et al. 2008)	∨			∧		
Classified as a federation (Treisman 2007)	∨					∧
Percentage of women in lower house of parliament, 1990 (Treisman 2007)	∨	∨	∨	∨		

Table 12.2 (continued)

Variables	Informal (Weak State)	Hybrid-Idiosyncratic	Statist (Resource Dependent)	Globalization-Friendly	Coordinated Market	Liberal Market
Subnational share of revenues (Treisman 2007)			∧			
Subnational share of expenditures (Treisman 2007)			∧	∨		∧
State weakness (Rice and Patrick 2008)	∨			∧	∧	n.a.
Natural state D1 (Gollwitzer Franke and Quintyn 2012)	∨		∨		∧	∧
Natural state D2 (Gollwitzer Franke and Quintyn 2012)	∨		∨		∧	∧
Natural state D3 (Gollwitzer Franke and Quintyn 2012)	∨		∨	∨	∧	∧
Natural state overall index (Gollwitzer Franke and Quintyn 2012)	∨	∨	∨		∧	∧
Cultural features and values						
Catholics as % of population 1980 (Treisman 2007)				∧	∧	
Protestants as % of population 1980 (Treisman 2007)		∨	∨			∧
Muslims as % of population 1980 (Treisman 2007)			∧		∨	∨
Percent of population that is not Catholic, Protestant, or Muslim (Treisman 2007)			∨			

Power distance index (Hofstede et al. 2010)			∧	∧	∨	∨
Index of individualism (Hofstede et al. 2010)			∨	∨	∧	∧
Uncertainty avoidance index (Hofstede et al. 2010)		∨			∧	∨
% agree that child obedience is important (World Values Survey)	∧		∧		∨	∨
% agree that child independence is important (World Values Survey)			∨			∧
% agree that parents must do the best for their children (World Values Survey)	∧	∧	∧		∨	∨
% agree that parents must be respected (World Values Survey)	∧		∧		∨	∨
% agree that family life is very important (World Values Survey)	∧				∨	
% agree that strangers can generally be trusted (World Values Survey)		∨	∨	∨		∧
Conflictuality						
Ethnolinguistic fractionalization, 1961 (Treisman 2007)	∧				∨	∨
Ethnolinguistic fractionalization, 1985 (Treisman 2007)	∧		∨	∧	∨	∨
Index of ethnic fractionalization (Alesina et al. 2003)	∧				∨	∨

Table 12.2 (continued)

Variables	Informal (Weak State)	Hybrid-Idiosyncratic	Statist (Resource Dependent)	Globalization-Friendly	Coordinated Market	Liberal Market
Index of linguistic fractionalization (Alesina et al. 2003)	∧				∨	∨
Index of religious fractionalization (Alesina et al. 2003)	∧		∨	∧		∧
Percent of a country's population that belongs to a partitioned group (Alesina et al. 2003)	∧	∨			∨	
Number of armed conflicts (external or internal) in which the government was involved (Treisman 2007)				∨	∨	
Average for sum of ratings of Uppsala Conflict Data Program (Treisman 2007)			∧	∨	∨	
Civil liberties						
Freedom House rating of freedom of press (high scores indicate freer press) (Treisman 2007)	∨	∨	∨		∧	∧
Newspapers per 1000 inhabitants (Treisman 2007)	∨	∨	∨		∧	∧
Television sets per 1000 inhabitants (Treisman 2007)	∨				∧	∧
Government ownership of the press (%) (La Porta et al. 2008)	∧				∨	∨

Government ownership of TV (%) (La Porta et al. 2008)	∧		∨
Government ownership of the press (La Porta et al. 2008)	∧		∨	∨
Newspaper circulation (La Porta et al. 2008)	∨	∨	∧	∧
Judicial independence (La Porta et al. 2008)	∨		∧	∧

References

Acemoglu, D., S. Johnson, and J.A. Robinson. 2001. The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review* 91 (3): 1369–1401.

Acemoglu, D., S. Johnson, and J.A. Robinson. 2005. Institutions as a Fundamental Cause of Long-Run Growth. In *Handbook of Growth Economics*, ed. P. Aghion and S. Durlauf, vol. 1A. Amsterdam: Elsevier, North Holland.

Acemoglu, D., and J.A. Robinson. 2006. *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press.

Acemoglu, D., and J.A. Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Business.

Agénor, P.R., and O. Canuto. 2012. Middle-Income Growth Traps. *World Bank Policy Research Working Paper* No. 6210. Washington, DC: The World Bank.

Aghion, P., Y. Algan, P. Cahuc, and A. Shleifer. 2010. Regulation and Distrust. *The Quarterly Journal of Economics* 125 (3): 1015–1049.

Ahlquist, J.S., and C. Breunig. 2009. Country Clustering in Comparative Political Economy. *MPIfG Discussion Paper* No. 5. Cologne: Max Planck Institute for the Study of Societies.

Aidt, T. 2003. Economic Analysis of Corruption: A Survey. *The Economic Journal* 113: F632–F652.

Alesina, A., and R. Perotti. 1997. The Welfare State and Competitiveness. *American Economic Review* 87 (5): 921–939.

Alesina, A., A. Devleeschauwer, W. Easterly, S. Kurlat, and R. Wacziarg. 2003. Fractionalization. *Journal of Economic Growth* 8 (2): 155–194.

Alesina, A., W. Easterly, and J. Matuszeski. 2011. Artificial States. *Journal of the European Economic Association* 9 (2): 246–277.

Alesina, A., and R. Wacziarg. 1997. Openness, Country Size and the Government. *NBER Working Papers*, No. 6024, National Bureau of Economic Research.

Alexeev, M., and Y. Song. 2013. Corruption and Product Market Competition: An Empirical Investigation. *Journal of Development Economics* 103 (1): 154–166.

Alston, L.J., M.A. Melo, B. Mueller, and C. Pereira. 2012. Changing Social Contracts: Beliefs and Dissipative Inclusion in Brazil. *Journal of Comparative Economics* 41 (1): 48–65.

Amable, B. 2003. *The Diversity of Modern Capitalism*. Oxford: Oxford University Press.

Andrews, M. 2013. *The Limits of Institutional Reform in Development: Changing Rules for Realistic Solutions*. Cambridge, MA: Cambridge University Press.

Barbier, E., and T. Homer-Dixon. 1996. Resource Scarcity, Institutional Adaptation and Technical Innovation: Can Poor Countries Attain Endogenous Growth? *Occasional Paper*, Project on Environment, Population and Security. Washington, DC: American Association for the Advancement of Science and the University of Toronto.

Becker, U. 2009. *Open Varieties of Capitalism: Continuity, Change and Performance*. Basingstoke: Palgrave Macmillan.

Besley, T., and T. Persson. 2011. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton, NJ: Princeton University Press.

Bockstette, V., A. Chanda, and L. Putterman. 2002. States and Markets: The Advantage of an Early Start. *Journal of Economic Growth* 7: 347–369.

Bruhn, M., and F.A. Gallego. 2012. Good and Ugly Colonial Activities: Do they Matter for Economic Development? *The Review of Economics and Statistics* 94 (2): 433–461.

Cuberes, D., and M. Jarzmanovski. 2009. Democracy, Diversification and Growth Reversals. *The Economic Journal* 119: 1270–1302.

Delavallade, C. 2012. What Drives Corruption? Evidence from North African Firms. *Journal of African Economies* 21 (4): 499–547.

Di Tella, R., and R. MacCulloch. 2009. Why Doesn't Capitalism Flow to Poor Countries. *Brookings Papers on Economic Activity* 40 (1): 285–332.

Doepke, M., and F. Ziliboti. 2008. Occupational Choice and the Spirit of Capitalism. *Quarterly Journal of Economics* 123 (2): 747–793.

Doktor, M. 2010. Is Brazilian Capitalism at an Institutional Equilibrium? A "Varieties of Capitalism" Approach. *Desenvolvimento em Debate* 1 (1): 51–69.

Dreher, Axel. 2006. Does Globalization Affect Growth? Evidence from a New Index of Globalization. *Applied Economics 38* (10): 1091–1110.

Easterly, W., and R. Levine. 2003. Tropics, Germs and Crops: The Role of Endowments in Economic Development. *Journal of Monetary Economics* 50 (1): 3–39.

Easterly, W., and R. Levine. 2012. The European Origins of Economic Development. *NBER Working Paper* No. 18162. Washington, DC: The National Bureau of Economic Research.

Easterly, W., and S. Pennings. 2016. Shrinking Dictators: How Much Economic Growth can We Attribute to National Leaders? *Development Research Institute Working Paper* No. 94, New York University.

Eichengreen B., D. Park, and K. Shin. 2011. When Fast Growing Economies Slow Down: International Evidence and Implications for China. *NBER Working Paper* No. 16919. Washington, DC: The National Bureau of Economic Research.

Eichengree B., D. Park, and K. Shin. 2013. Growth Slowdowns Redux: New Evidence on the Middle-Income Trap. *NBER Working Papers* No. 18673. Washington, DC: The National Bureau of Economic Research.

Engerman, S.L., and K.L. Sokolof. 2002. Factor Endowments, Inequality, and Paths of Development among New World Economies. *Economia* 3 (1): 41–109.

Epifani, P., and G. Gancia. 2009. Openness, Government Size and the Terms of Trade. *Review of Economic Studies* 76 (2): 629–668.

Fafchamps, M. 1996. The Enforcement of Commercial Contracts in Ghana. *World Development* 24 (3): 427–448.

Fajnzylber, P., and J.H. López. 2008. *Remittances and Development: Lessons from Latin America*. Washington, DC: The World Bank.

Felipe J., A. Abdon, and U. Kumar. 2012. Tracking the Middle-Income Trap: What Is It, Who Is in It, and Why? *Levy Institute of Bard College Working Paper* No. 715. New York: Levy Institute of Bard College.

Gallup, J.L., J. Sachs, and A.M. Mellinger. 1998. Geography and Economic Development. *NBER Working Papers*, No. 6849, National Bureau of Economic Research.

Galor, O., O. Moav, and D. Vollrath. 2009. Inequality in Land Ownership, The Emergence of Human Capital Promoting Institutions, and The Great Divergence. *Review of Economic Studies* 76 (1): 143–179.

Garen, J., and K. Trask. 2005. Do More Open Countries Have Bigger Governments? Another Look. *Journal of Development Economics* 77: 533–551.

Glaeser, E.L., R. La Porta, F. Lopez-de-Silanes, and A. Shleifer. 2004. Do Institutions Cause Growth? *Journal of Economic Growth* 9 (3): 271–303.

Gollwitzer Franke, S., and M. Quintyn. 2012. Institutional Transformations, Polity and Economic Outcomes: Testing the North-Wallis-Weingast Doorsteps Framework. *IMF Working Papers*, WP 12/87. Washington, DC: The International Monetary Fund.

Gurievy, S., A. Kolotilinz, and K. Sonin. 2009. Determinants of Nationalization in the Oil Sector: A Theory and Evidence from Panel Data. *Working Paper*, New Economic School, Moscow.

Hall, P.A., and D.W. Gingerich. 2004. Varieties of Capitalism and Institutional Complementarities in the Macroeconomy: An Empirical Analysis. *MPIfG*

Working Paper No. 04/5. Cologne: Max Planck Institute for the Study of Societies.

Hall, P.A., and D. Soskice. 2001. An Introduction to Varieties of Capitalism. In *Varieties of Capitalism: The Institutional of Foundations of Comparative Advantage*, ed. P.A. Hall and D. Soskice, 1–68. Oxford: Oxford University Press.

Hofstede, G., G.J. Hofstede, and M. Minkov. 2010. *Cultures and Organizations: Software of the Mind*. Maidenhead, UK: McGraw-Hill.

Hicks, A., and L. Kenworthy. 2003. Varieties of Welfare Capitalism. *Socio-Economic Review* 1 (1): 27–61.

Jones, B., and B. Olken. 2005. Do Leaders Matter? National Leadership and Growth Since World War II. *The Quarterly Journal of Economics* 120 (3): 835–864.

Koechlin, V., and G. Leon. 2007. International Remittances and Income Inequality: An Empirical Investigation. *Journal of Economic Policy Reform* 10 (2): 123–141.

Kornai, J. 2008. *From Socialism to Capitalism: Eight Essays*. Budapest and New York: Central European University Press.

La Porta, R., F. Lopez-de-Silanes, and A. Shleifer. 2008. The Economic Consequences of Legal Origins. *Journal of Economic Literature* 46 (2): 285–332.

Malik, A., and J.R.W. Temple. 2009. The Geography of Output Volatility. *Journal of Development Economics* 90 (2): 163–178.

Nölke, A., and A. Vliegenthart. 2009. Enlarging the Varieties of Capitalism: The Emergence of Dependent Market Economies in East Central Europe. *World Politics* 61 (4): 970–702.

North, D.C., J.J. Wallis, and B.R. Weingast. 2009. *Violence and Social Orders*. Cambridge: Cambridge University Press.

Nunn, N. 2008. Slavery, Inequality, and Economic Development in the Americas: An Examination of the Engerman-Sokoloff Hypothesis. In *Institutions and Economic Performance*, ed. E. Helpman, 148–180. Cambridge: Harvard University Press.

———. 2013. The Long-term Effects of Africa's Slave Trades. *The Quarterly Journal of Economics* 123 (1): 139–176.

Nunn, N., and D. Puga. 2012. Ruggedness: The Blessing of Bad Geography in Africa. *Review of Economics and Statistics* 94 (1): 20–36.

Persson, T., and G. Tabellini. 2003. *Economic Effects of Constitutions*. Cambridge, MA: The MIT Press.

Pryor, F.L. 2006. Economic Systems in Developing Countries. *Comparative Economic Studies* 48 (1): 77–99.

Ramsay, Kristopher. 2007. Natural Disasters, the Price of Oil and Democracy. *Working Paper*, Princeton University.

Rice, S., and S. Patrick. 2008. *Index of State Weakness in the Developing World*. Washington, DC: The Brookings Institution.

Ross, Michael. 2001. Does Oil Hinder Democracy? *World Politics* 53: 325–361.

Rudra, N. 2007. Welfare Regimes in Developing Countries: Unique or Universal? *Journal of Politics* 69 (2): 378–396.

Sachs, J., and A.M. Warner. 1995. Natural Resource Abundance and Economic Growth. *NBER Working Paper* No. 5398, National Bureau of Economic Research.

Sachs, Jeffrey, and Andrew Warner. 2001. Natural Resources and Economic Development: The Curse of Natural Resources. *European Economic Review* 45: 827–838.

Schneider, B.R. 2009. Hierarchical Market Economies and Varieties of Capitalism in Latin America. *Journal of Latin American Studies* 41 (3): 553–575.

Schröder, M. 2008. Integrating Welfare and Production Typologies: How Refinements of the Varieties of Capitalism Approach Call for a Combination of Welfare Typologies. *Journal of Social Policy* 38 (1): 19–43.

Shleifer, A., and R.T. Vishny. 1993. Corruption. *The Quarterly Journal of Economics* 108 (3): 599–617.

Treisman, D. 2007. What Have We Learned About The Causes of Corruption From 10 Years of Crossnational Empirical Research? Annual Review of Political Sciences 10 (1): 211–244.

Wantchekon, Leonard. 2002. Why do Resource Dependent Countries Have Authoritarian Governments? *Journal of African Finance and Economic Development* 2: 57–77.

13

Institutional Trajectories: Three Comparative Case Studies

François Combarnous and Eric Rougier

13.1 Introduction

The high degree of institutional diversity revealed in the preceding chapters might seem somewhat surprising for those who believe that, in an increasingly globalized world, developing countries are all converging towards one unique capitalistic model. When, however, institutional systems are studied at a sectoral level, their diversity becomes very apparent, with each of the developing countries studied here being characterized by a specific set of sectoral regulations (see the general Appendix at the end of this book). In Chap. 11, this diversity has been crystallized in four different models of emerging capitalism. In Chap. 12, these models have been defined according to their main institutional complementarities and hierarchies.

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Section 11.6 has already revealed significant differences in the capitalism models to be found in the various continents. In Asia, Africa and Latin America, countries that initially shared common features in terms of geography, culture and history, were to end up adopting very different types of capitalism institutional governance. The present chapter aims at describing the long-term historical trajectories that eventually led to this observed diversity of institutional configurations.

Our empirical work describes the sample countries' institutional systems, just prior to the 2008 financial crisis. It is not intended, however, to provide detailed information about how individual countries came to their current institutional configuration. The first reason is technical: there are no relevant and comparable institutional data for the whole post-independence period. The second reason is that, as the process of institution building is dependent on crises and sociopolitical conflicts, institutional trajectories could be better described using a comparative historical analysis rather than a statistical analysis.

Our methodological approach compares the institutional trajectories of one pair of countries per continent (Africa, Asia and Latin America): Cote d'Ivoire and Ghana, for Africa (Sect. 13.2), Brazil and Mexico (Sect. 13.3) for Latin America, and Indonesia and Malaysia (Sect. 13.4) for Asia. Each of the pairs chosen had started off with a certain number of institutional similarities,[1] but, by 2006, they had ended up by diverging considerably to such an extent that they had to be clustered in different models on the basis of our empirical analysis. Three standardized questions have been employed by our comparative analysis for all three country pairs.

First, what critical junctures can explain the direction taken by institutional reforms and the ensuing institutional trajectory, and what were the sociopolitical coalitions that supported them? It cannot be denied that historical events, like revolutions or critical political realignments, introduce disruption into the prevailing model of socioeconomic governance, with these critical changes having an enduring effect on the institutional

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[1] These pairs were selected on the basis of their initial geographical, economic and socio-political similarities, although, of course, other possible pairs could have been chosen and discussed. We had, nonetheless, due to obvious space limitations, to limit ourselves to a unique pair of countries for each continent. Our pairing is close to that proposed by Lall and Myint (1996) in their comparative analysis of developing countries' political economies.

trajectory. Past organizational choices generate learning, coordination and expectation effects that, in turn, condition future choices and impose high individual and collective costs of change. Those choices thus create stakeholders who struggle to perpetuate the status quo.[2]

Second, what reciprocal influence can be observed between the institutional trajectory and the development strategy? Over the last 50 years, developing countries have managed to achieve sustained spells of income expansion thanks to a significant variety of development strategies. The new institutional options introduced at political critical junctures could only be sustained if they were supportive of the overall development strategy. In turn, successful development strategy naturally contributes to legitimizing the new institutions.[3] Hence, development strategy, as well as its bifurcations, is a key component of institutional trajectory.

Third, what has been the role, if any, of external change factors in the shaping of these institutional trajectories? The institutional reforms of developing countries have largely been based on blueprints drafted by experts and international organizations (Evans 2004; Dezalay and Garth 2002; Andrews 2013). A perfect illustration of this sort of external influence is given by the structural adjustment programmes, which have been the source of major regulation inflection in many developing countries (Berr et al. 2009; Rodrik 2010). In such Latin American countries as Argentina or Mexico, foreign firms have also exerted significant influence on the direction of reforms, pushing forward labour and goods market regulations that served their interests (Schneider 2004). Thus, there are various sources at work in the influence of external actors on institutional reforms.

Each pair of countries is compared by systematically addressing the above three issues. For each country, the types of sectoral regulation recapitulated in the general Appendix have been compared with what national case studies have shown for their historical trajectory of reforms.

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[2] Because the inclusion of labour unions and peasant organizations within ruling coalitions provided political support for this critical realignment, Haggard and Kaufman (2008) have, for example, described how the establishment of social protection schemes durably modified the entire institutional hierarchy of many Latin American and Asian countries.

[3] The early Chinese economic reforms perfectly illustrate this two-way influence. Those reforms introduced dramatic changes in the distribution of economic resources, supported by administrative decentralization and increased *de facto* local political power, with the economic success of the reforms providing, in turn, strong support for the new local rules of the game (Bardhan 2010).

	De jure isomorphic	De facto polymorphic
Progressive (Functional)	Brazil/Indonesia Malaysia/Mexico *Statism*	Brazil (*Hybrid*) Malaysia Ghana (*Globalization-Friendly*)
Regressive (Dysfunctional)	Cote d'Ivoire/Ghana *Informality* Cote d'Ivoire *Informal* (*Weak State*)	Indonesia (*Informal outward-oriented*) Mexico (*Statist outward-oriented*)
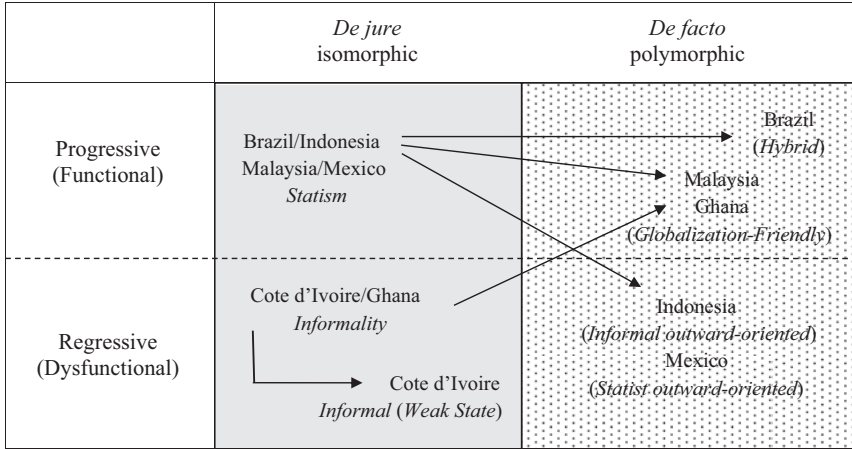
Table 13.1 Institutional trajectories and institutional complementarities

The chapter closes with Table 13.1 contrasting the trajectories of all six countries, as well as their initial and final positions, in the institutional complementarities map (*de jure*/*de facto*/functional/dysfunctional).

13.2 Cote D'Ivoire and Ghana

At the end of the 1950s, Cote d'Ivoire and Ghana, when they had respectively obtained their independence from France and the UK, shared fairly similar characteristics concerning their population size, climatic conditions, natural endowments, development level and economic structure. At a time when manufacturing industry did not even attain 10%, the share of agriculture represented almost 50% of total production, and both countries strongly relied on a restricted set of commodity exports: coffee, timber and cocoa for Cote d'Ivoire; cocoa, timber and gold for Ghana. In 1960, 80% of the population of each country lived in rural areas, with limited access to medical services. Equally, strong income differences between regions and communities undermined socioeconomic cohesiveness in both countries (Alpine and Pickett 1993).[4]

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[4] The northern regions of both countries were predominantly Muslim: these regions were more sparsely populated and economically disadvantaged than the predominantly Christian southern regions.

Decolonization, nevertheless, launched these two economies onto two very different institutional and economic trajectories. Just after independence, Cote d'Ivoire's export-led "miracle" was to make the country the most promising economy in West Africa. Meanwhile, Ghana was confronted with a series of social, economic and political crises that ended up by undermining state authority and impoverishing large segments of the population.[5] But the positions became reversed in the early eighties,[6] when falling prices in agricultural commodities (in particular cocoa), and rising debt, triggered a deep crisis, which the two economies weathered differently, with each embarking upon contrasting growth trajectories.[7] Moreover, Cote d'Ivoire was to suffer from continuous political instability in the aftermath of the 1999 coup, with civil war breaking out in 2002 and political tension between the Muslim north and the Christian south thenceforth never decreasing. Whereas Cote d'Ivoire is still struggling to escape economic crisis and political instability, Ghana has become, ever since the last decade, the undisputable pillar of regional stability,[8] with durably high growth rates sustaining socioeconomic progress.[9]

As for institutions, Cote d'Ivoire and Ghana also neatly differentiate since, although Ghana has been typified as a *Globalization-Friendly* country, Cote d'Ivoire is much more akin to a *Hybrid-Idiosyncratic* type.

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[5] The country faced minor coup-related conflicts in 1966, 1981 and 1983, but the north-south divide never led to high levels of violence. Despite extremely close victory margins, the 2008 and 2012 presidential elections were determined as corruption-free by international groups, and no violence was experienced.

[6] The GNI per capita in purchasing power parity, which was almost three times higher in Cote d'Ivoire than in Ghana in the early 1980s, has never stopped deteriorating and is now similar in both countries.

[7] While average annual GDP growth rates in Cote d'Ivoire amounted to 0.7% (1980s), 2.4% (1990s) and 1.1% (2000s), they were significantly higher in Ghana (2.3%, 4.3%, and 5.8%) and in the whole Sub-Saharan region (1.5%, 2.1% and 5.2%). In 2011, Ghana was one of the fastest growing economies in the world, with an annual GDP growth rate of 15%, while Cote d'Ivoire experienced one of the worst performances in the world, with an annual GDP growth rate of—4.7%.

[8] During the 1960s and 1970s, Ivoirian growth (8.9% and 5.5%) significantly outweighed that of Ghana (3.0% and 0.5%) and was one of the highest in Africa (authors' computations, World Bank data).

[9] There was a life expectancy of 64.6 years versus 56 for Cote d'Ivoire, and a mean of 7 years of schooling and 11.4 expected years of schooling, compared to 4.2 and 6.5 for Cote d'Ivoire. The poverty headcount ratio, taken as the number of poor people, has steadily declined in Ghana since 1980, whereas it increased continuously in Cote d'Ivoire during the same period.

Ghana actually combines such typical features of the *Globalization-Friendly* model as an export-oriented liberalized competition and an upgrading export-oriented education system. By contrast, Cote d'Ivoire articulates several idiosyncratic sectoral types with *Informal* (*Weak State*) institutional characteristics, especially as regards education and finance. Moreover, the quality of its socioeconomic and political governance is significantly lower than that of its West African comparator.

So, what are the socioeconomic or political circumstances that led these two, initially similar, countries to such different trajectories and, by extension, to such contrasted socioeconomic outcomes? After their independence, both Cote d'Ivoire and Ghana chose to base their development strategies on commodity exports—primarily that of cocoa—and on public spending as a means of redistributing the export rents. Undoubtedly, the future political and economic fortunes and misfortunes of these two countries can be traced back to this initial choice. Three key junctures help explain their subsequently trajectories: (i) the specific preconditions each inherited from colonization and decolonization, (ii) the way their elites managed their rent during its heydays and (iii) the way they dealt with the dramatic decrease in revenue caused by the exogenous cocoa price shock of the early 1980s.

13.2.1 The Colonization Legacy

Ghana and Cote d'Ivoire were colonized by the French and British powers on the basis of radically different types of rule. The French approach to colonization leaned towards a policy of assimilation and central administration, whereas British indirect rule organized the establishment and control of the territory via its local elites (Blanton et al. 2001). Thus, the French in Cote d'Ivoire dismantled the existing political structure, so that the colonized state could be governed as though it were an extension of France, in a highly centralized bureaucratic fashion. As for Ghana, it was ruled by the British through a decentralized state system, which left traditional powers and hierarchies in place.[10] This contrasted colonization

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[10] However, authors such as McCauley (2013) consider that "indirect rule in Ghana came only after a generation of direct rule that had already undermined local traditional elites", making both countries more similar than different, even in this respect.

legacy goes some way towards explaining the development trajectories of these countries after independence.

In Cote d'Ivoire, Houphouët-Boigny based many of his post-colonial institutions on the bureaucratic institutions left by the former colonial power. The centralized bureaucratic institutions left by the French had not suppressed socially accepted traditions, so that the ensuing centralized policies never became fully established or accepted. Since this assimilation policy had not been disseminated throughout the whole population, ethnic and religious stratification remained high (Broussalian 2011). Tensions between major ethno-regional interest groups could, nonetheless, be offset by institutionalized patronage relationships. Moreover, the stability of Cote d'Ivoire, during this first post-independence period, remained extremely dependent on French economic and military assistance.

In Ghana, the British ruled the country via a decentralized state system, a "divide and rule" plan that relied on the local elites establishing and maintaining control of the territory, thereby inhibiting the creation of a dominant ethnic group. Such indirect rule supported customary law and incremental change in society and also fostered nation building, even prior to independence (Broussalian 2011). Ghana gained independence under the nationalist leader, Nkrumah, whose goal was to achieve self-governance as quickly as possible. He replaced the policies of chieftaincy and indirect rule by instituting a legislature, but did so incrementally, first creating regional assemblies. In this way, he contributed to the emergence of a clear national identity,[11] and significantly decreased the prominence of the north–south cleavage (Nordas 2008).

Though both French and British styles of colonization left extensive damage in their wake, colonial vestiges, in the particular case of Cote d'Ivoire, have been much more difficult to overcome than in Ghana (Broussalian 2011). In particular, the differentiated land rights—inspired by colonial rules—that were instituted after independence, have played a central part in the subsequent development of these two countries. In

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[11] A typical example of this effort to strengthen national unity was the "Avoidance of Discrimination Act" (1957), which banned political parties structured along ethnic, religious or regional lines.

Ghana, the law recognizes the chief's traditional ownership of the lands, so that land rights are legalized via the chieftaincy institution. Customary land rights are thus accepted by the people and "Westernized", as statutory law slowly seeps in Broussalian (2011). Cote d'Ivoire, however, did not recognize customary land rights, and implemented some centralized laws and procedures that often led to frictions between varied ethnicities. Houphouët-Boigny declared that the land belonged to those who cultivated it. Such a fluid system of land ownership appealed to migrants (nationals or not) who could obtain land, which they then cleared and farmed (Chirot 2006). This undoubtedly fostered production and growth, but also rapid deforestation, and instilled a "foreigners vs. nationals" mentality that would soon lead to great instability.

13.2.2 Rents, Development Strategies and Politico-Economic Equilibria

During the 1960s and 1970s, two different development strategies were implemented by post-Independence ruling elites to maximize their exploitation of the cocoa rent. In Cote d'Ivoire, Houphouët-Boigny's vision clearly favoured economic development over significant political change. For McCauley (2013), the development strategy of Cote d'Ivoire at the time could be characterized by five elements. First, the choice of a market-driven agriculture which, by securing higher prices for producers, tended to concentrate opportunities in the southern temperate regions of the country. Second, a strategic liberal immigration policy, which attracted the necessary workforce with promises of land rights. Third, strong dependence on open markets and foreign interdependence, particularly vis-à-vis France, which guaranteed long-term export market prices and limited defense expenditures. Fourth, the pervasive "state capitalism", based on state-owned enterprises and cooperatives, which was responsible for the bulk of wealth and job creation. Finally, the control of ethnic claims, with social identity groups being compartmentalized, which defined the distribution of patronage.

Throughout much of the post-independence history of Ghana, its development strategy was foremost in promoting a structural shift to state-led import substitution industrialization. Such an interventionist

approach was aimed at fostering learning by doing, and at appeasing major interest groups via national scale industrial policies. In order to finance such policies, Ghana relied on domestic agricultural support derived almost exclusively from cocoa production, even though the prices paid to producers were limited to the strict minimum (Alpine and Pickett 1993). Most of the agricultural surplus was directed towards industrialization. At the same time, a proactive policy, the *Ghanaianization* of economic production, was implemented, and Ghana started to invest in the promotion of human capital throughout the country, encouraging the development of a strong civil society in order to favour national-scaled groups, rather than those with ethno-regional attachments.

Whereas Cote d'Ivoire implemented an economically driven development strategy that proved profitable during the rent heydays, Ghana pursued a politically driven development strategy that caused economic hardship and debt problems. Initially, Cote d'Ivoire was successful in developing infrastructures, diversifying the country's agricultural base and promoting limited import-substitution industrialization. Ghana, however, constructed its national identity and unity at the cost of its economic growth. In line with McCauley (2013), we can conclude that Ghana's development strategy may have drastically limited the country's economic performance during the two post-independence decades. However, it also promoted peaceful intergroup relations and a robust civic culture that have proven extremely invaluable in the long term, especially when competition over the control of a rapidly shrinking resource started to become more intense. Conversely, Cote d'Ivoire's government embraced an open-market economic strategy relying heavily on migrant labour and, for the sake of patronage distribution, classified groups along ethnic and regional lines. The peace-promoting effect of economic expansion disappeared rapidly in the early 1980s when per capita productivity and commodity prices started to decline sharply.

13.2.3 Reforming Institutional Systems in Time of Crisis

The crisis of the 1980s, caused by the downward trend in international commodity markets, considerably reduced the volume of agricultural

rent for both countries. Cote d'Ivoire and Ghana then did their best to maintain their respective schemes of development, but their ensuing external debt forced the two countries into an economic crisis that each weathered differently.

When the crisis arose, Cote d'Ivoire managed to avoid, for a certain time, the most rigorous aspects of fiscal adjustment, thanks to its privileged political and economic relationship with France. Shortly after the death of Houphouët-Boigny, however, the IMF imposed harsher structural adjustment programmes, including the devaluation of the CFA Franc in 1994, which put an end to the Ivoirian patronage system. These programmes were targeted at substantially reducing the size of the state, and at allowing market forces to determine the production and allocation of resources. The whole package of policies was implemented by the successive Ivoirian governments, whose financial needs were high and bargaining power low.[12] The macroeconomic adjustment would have dire consequences for the Ivoirian population, and the economic and political history of the country would be durably conditioned by the intensified competition over the control of a shrinking resource triggered by the structural adjustment. The country's successive leaders manipulated the dangerous concept of "Ivoirité", in order to remove a sizeable part of the population from citizenship, jobs, property ownership, elections and, of course, from rent-sharing. In so doing, they tried to perpetuate the rent-seeking system, but exclusively for a minority of the population. The country has since been confronted with severe cases of xenophobia and religious/ethnic marginalization that would lead to political instability, coups and, finally, to civil war in 2003. This disastrous shift, from an abundant homogenizing form of patronage to an impoverished ethnicized one, explains the worsening situation of the most vulnerable part of Cote d'Ivoire's population (Conte 2005).

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[12] Berr et al. (2009) have constructed an index that measures and combines the degree to which each policy aspect has been implemented, the Washington Consensus Index. This index shows that, in both the 1980s and the 1990s, Cote d'Ivoire engaged itself more rapidly and deeply in reforms than most sub-Saharan countries, whereas Ghana's commitment to reforms remained extremely weak during the 1980s, and well below the average of other sub-Saharan economies during the 1990s.

In Ghana, Rawlings' government embraced the structural adjustment programmes of the IMF and the World Bank. The legitimacy of power and the relative national unity allowed the government to gradually introduce and pragmatically implement reforms. Most of the time, the Ghanaian government took heed of public opinion and discussed the IMF's reform proposals point by point. For the same reasons, the financial institutions gave a certain leeway to the country as regards the design and implementation of reforms. The most prominent example of this pragmatism is, perhaps, the liberalization of the cocoa sector. Whereas Cote d'Ivoire had to accept an abrupt liberalization of the sector, Ghana negotiated progressive change that allowed the country to keep relative control over this sector and its revenues. Despite several institutional reforms aimed at subjecting the cocoa sector to market forces, the "Ghana Cocoa Board" still largely controls the sector on behalf of the government. The perpetuation of cocoa rents, export-oriented diversification of production and efficient anti-corruption schemes have brought about indisputable macroeconomic improvement. Whereas Ghana has, therefore, finally shifted its institutional system towards the *Globalization-Friendly* model, Cote d'Ivoire no longer appears to have a clear development strategy, and is probably handicapped by its dysfunctional hybrid institutional model.

The political ideology that ruled over the construction of the state in the two countries certainly explains their diverging trajectories. On the one hand, the incremental construction of Ivoirian democracy has strongly relied on a patron–client model, with the single party democracy regime of Houphouët-Boigny organizing the distribution of state patronage to institutionalized ethnic group-based political parties in order to maintain cohesion. After the death of Houphouët-Boigny, the dominant party failed to maintain stability, essentially because it lacked the necessary means to finance it. On the other hand, after Ghana had experienced a period of one-party rule under Nkrumah, and the interruption of civilian rule by military dictatorship, political stability came, in the 1990s, from the development of parties and democratic norms. The emergence of programme-based and democratic political parties soon created a more stable foundation for long-term economic development (Zhang 2013), improving the use of export rent windfalls.

The contrasted political ideologies of the early leaders of both countries explain why the countries followed such different political trajectories.[13] In order to improve population welfare and to ensure the nation's stability, Houphouët-Boigny built up the state institutions on the basis of the bureaucratic institutions left by the French (Broussalian 2011). Maintaining stability in this environment required a rigid central control that could only be rendered less harsh by the ethno-regional redistribution of the massive revenues of commercial agriculture. In Ghana, unity has been a fundamental principle ever since independence. Nkrumah promoted a pan-African identity and nationalistic ideas that delayed liberalization and led to a sustained collapse in the economy that only ended in the 1980s. Nonetheless, Nkrumah's actions strongly contributed, via decentralization, to the construction of a greater civic Ghanaian identity. In the light of economic history, the second model finally proved its greater effectiveness in the international insertion process, as well as in the promotion of the population's well-being.

13.3 Brazil and Mexico

If we consider the present-day macroeconomic characteristics of Mexico and Brazil,[14] these two countries exhibit somewhat contrasted features. With a labour force twice that of Mexico (106.3 million vs. 50.64 million in 2012), Brazil records lower GDP per capita than Mexico ($12,100 vs. $15,600, current US dollars in 2012). As for state fiscal capacities, tax revenues are more than three times higher in Brazil than in Mexico ($875 vs. $266 billion dollars in 2012), with public debt being, however, substantially higher in Brazil (58.8% vs. 35.9% of GDP for Mexico in 2012). Although Mexican exports are higher than those of Brazil ($242.6 billion versus $370.9 billion in 2012) for a lower overall GDP ($1,788 billion versus $2,394 billion in 2012), which would suggest greater trade

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[13] On the role of leaders' individual characteristics and educational background, see Jones and Olken (2005) and Besley et al. (2011). On the role played by political leaders' ideology and background on the content of reforms, see Dreher et al. (2009) and Lin (2009).

[14] The macroeconomic data used in this paragraph is taken from CIA factbooks.

openness for the former, the Brazilian economy seems to reap more macroeconomic benefits from its integration to world markets.[15]

Still, Latin American capitalisms tend to be considered as relatively homogeneous in the New Institutionalist literature. Schneider and Soskice (2009) have, for example, subsumed all Latin American capitalisms under the *Hierarchical market economies* ideal-type, with their markets and organizations being strongly subjected to the political and economic power of foreign capital. Latin American capitalisms have also frequently been described as economic systems in which the state tends to be dominated by coalitions composed of groups favourable to the exploitation of agro-rents and to an import-substitution strategy. As a result, Latin American governments could not remove import substitution protections and shift to the export-promotion strategy, because such a shift would have required opening up the coalition supporting economic transformation to new sectors and workers (Haggard 1990).[16] Since the benefits of economic expansion were monopolized by small coalitions of politically connected entrepreneurs, bureaucrats and qualified workers of advanced industries, which restricted the entry of other groups (Haber 1997), Latin American countries have not succeeded in emulating North American or East Asian economic development trajectories. Although to different extent, Brazil's and Mexico's development trajectories over the last 100 years conform pretty well to the Latin American pattern.

13.3.1 Two Statist Economies with Contrasted Political Economies

Although their initial conditions were comparable (large territories, natural resource availability, the Catholic religion, extractive colonization, distance from the equator and access to coasts), Brazilian and Mexican capitalisms have, in fact, become radically different over time.

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[15] Although the volume of foreign reserves increased for the two countries during the last decade, in 2012, Brazil showed a level ($373.1 billion) more than twice that of Mexico ($167.1 billion). Equally, Brazil's stock of FDI is double that of Mexico.

[16] The market could not grow, in turn, because unequal income distribution restrained both consumption demand and investment in physical and human capital (Bizberg 2011; Bizberg and Théret 2012).

In Chap. 11, we were able to show that Mexico should be classified as *Statist* (*Resource Dependent*) capitalism, whereas Brazil is best described by the *Hybrid-Idiosyncratic* model. Undoubtedly, this difference can be explained in part by the two countries' divergent economic development and political change historical trajectories. A simple consideration of their configuration of sectoral governance types (see general Appendix) shows that Brazil and Mexico have built very different agricultural systems and goods, capital and labour market regulations. Mexico articulates an *idiosyncratic goods market*, and i*ntermediated constrained finance*, a *paternalistic labour market* and a *modern formalized agriculture*. By contrast, Brazil shows a *statist partially liberalized goods market*, an *embryonic finance*, a *coordinated labour market* and an *idiosyncratic agriculture*.

Actually, the development path of each one of the two countries was sufficiently dissimilar to have generated two distinct institutional trajectories (Marques-Pereira and Théret 2004), with the Brazilian institutional configuration showing signs of high internal consistency from the 1970s onwards, while the Mexican one showed increasing signs of internal inconsistency (Bizberg 2011). These contrasted institutional features and development trajectories can be traced back to singular combinations of critical junctures and political economies and policy choices in the two countries.

Even though they both recorded high growth performance under post-World War II import substitution strategies, the real content of their development trajectories demonstrates crucial differences that are described below. The divergence of the two development trajectories, from the late 1970s onwards, can be explained in part by the different institutional and political economic background each country had inherited. Brazil and Mexico were two former European colonies endowed with great natural resources, but these countries have followed quite different sociopolitical trajectories since their independence. These immediate post-independence trajectories certainly help in understanding how their socioeconomic models have diverged, especially after the crises of the 1980s.

Their political equilibriums were also slightly different, with important consequences in terms of the necessary governmental capacity to pursue policies guided by common, rather than vested, interest.

In nineteenth-century newly independent Mexico, the highly conflictual elite inherited from colonization and the succession autocratic regimes, has constantly undermined the efforts of economic modernization, which notably accelerated under Benito Juárez around 1870. This failure to modernize the Mexican economy led to a succession of wars and political crises. Although Porfirio Diaz reforms succeeded in integrating the Mexican territory at the end of the century and tried to modernize the economy by opening the territory to foreign investment, political rivalry within the elite worsened under the patrimonial logic of the regime. Moreover, the emergence of new politically powerful groups, the migrant entrepreneurs and the small farmers of the north, led to the intensification the competition for economic privileges (Rivera Rios 2014). In a culture where there is high possibility of conflict, and rent-seeking within the elite has impeded the formation of a growth coalition that could have prompted early industrialization.

The social revolution launched in 1910 introduced a new political equilibrium by launching an ambitious land reform that destroyed the basis of the traditional rural elites' economic and political power. The political coalition that was to dominate Mexican economic and political life for a century, under the leadership of the Institutional Revolutionary Party (PRI), was essentially composed of civil servants, unionized private firms' workers, as well as of peasants having benefited from the land reform (Levy and Szekely 1987). Since the main objective of the new elites was to preserve political stability, notably by preventing distribution conflicts, the PRI established a political economy based on patronage and corporatist relationships, especially with labour and peasant organizations (Haggard and Kaufman 2008). Ambitious policies like labour reforms for the workers, promotion of indigenous rights, anticlerical regulation, and control of foreign investment were incorporated into the Constitution of 1917. Yet, the new labour code imposed limits on political organization and collective bargaining, thereby limiting the empowerment of many social groups (Haggard and Kaufman 2008). In fact, the objectives of a competitive industrial economy emergence and of promotion of broad social mobilization were downplayed by the ruling PRI, to the benefit of social and political stability.

The control of the Mexican economy by the PRI increased drastically during the first half of the century. As a consequence, state concessions and investment had enabled the emergence of an export agriculture and import-substitution industry by the 1950s. Yet, since only weak priority had been given to rural industrialization during the post-war period, and because foreign capital was expropriated in the 1970s, investment efforts soon relied on the state alone. This expropriation policy, coupled with the absence of agrarian surplus and accumulation, eventually impeded the shift from basic commodities to equipment goods import substitution (Alarcon and McKinley 1992). Moreover, competition between the former entrepreneur class and the new "industrial bourgeoisie" bred by the import-substitution strategy eventually resulted in a new era of political struggle to accumulate the benefits of protectionism and subsidies and the failure of the industrialization strategy (Rivera Rios 2014). Ultimately, the discovery of oil reserves in the 1970s transformed Mexico into a natural resource exporter, with the regime using export and external debt revenues to maintain its redistributive authoritarian political regime and delay changes required by the development strategy (Bizberg 2011).

From 1970 to 1982, as macroeconomic and political stabilization objectives became even more prevalent, the regime embarked upon reforms designed to reinforce its electoral support: redistributive land reform, extension of welfare benefits to the entire formal sector, and expansion of primary education in the rural areas. Whereas the former two reforms only produced contrasted effects, the latter one significantly reduced illiteracy rates to levels far below those of contemporaneous Brazil. In the 1980s, however, half the total population still lacked effective social protection (Haggard and Kaufman 2008), small peasants could not really invest in their land or save, so that the rural population remained durably poor, with no surplus to invest in urban and industrial activities, in contrast with what would be observed several decades later in Korea and Taiwan (Bizberg 2011).

Unlike Mexico, the main characteristic of Brazil over the last 150 years has been the remarkable internal cohesion of its successive dominant coalitions. Post-colonization Brazil featured both a heavily fragmented society, with black slaves, white poor, and political and economic elites,

and a strong desire to maintain political stability and territorial integrity through moderate and consensual policies (Hayes 1989; Levine and Crocietti 1999). Quite paradoxically, the strong and stable dominant coalitions established a limited-access political order designed to organize extraction, while simultaneously moderately promoting social mobility (Rivera Rios 2014). Even when the coffee boom at the end of the nineteenth century brought in a new elite that started competing with the traditional ones, they all took care not to disrupt the stability of the Brazilian political equilibrium. As a result, the primary export boom was soon to translate into early industrialization, with the support of an ambitious effort of public investment in railroads (Abreu and Verner 1997).

The economic strategy introduced by G. Vargas, when he acceded to power in 1930, continued to organize political and economic stability by promoting the development of modern heavy industries such as steel and equipment goods, and the modernization of the large-scale exporting agriculture that had supported the previous phase of Brazilian expansion in the wake of independence. Brazil's economic strategy, unlike that of Mexico, was never subordinated to the political objective of stability (Bizberg 2011). The agro-industrialist coalition shared with the state a common vision of industrialization as a crucial instrument for unifying the country and gaining autonomy. The state apparatus itself was more autonomous than in Mexico, where it was constantly instrumentalized by the political regime. The Brazilian state used industrialization and growth as a means to legitimize itself and survive, in spite of successive regime changes during the 1950s and 1960s (Bizberg 2011).[17] After democracy was restored in 1946, the state was confirmed as the key player in the economic development strategy, which was based on building up autonomous industrial capacities by substituting domestic production for imports (Rivera Rios 2014). The military coup of 1964 was not to change

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[17] During that period, the developmental and nationalistic objectives were also motivated by the need to solidify the political support of heterogeneous coalitions of urban workers and the rural oligarchy (Haggard and Kaufman 2008). Although unions and labour organizations were mobilized politically, with ambitious labour codes being promulgated, both to gain the political support of workers and to insulate them from the emerging communist influence, no significant progress in terms of social regulation was made during the period. It proved almost impossible to contain growing contestation of both educational access inequality and the absence of land reforms, and the leftist orientation of Goulart's populist government was reversed in 1964.

this situation. In order to develop intermediary and equipment goods industries, the military government that seized political power strongly promoted the articulation of foreign and domestic private and state capital. In the absence of significant land reforms, the political and economic position of the traditional Brazilian coffee and sugar growers' elites was not weakened, so that they did not block the economic transformation towards new industries. This certainly constitutes a crucial difference with the strategy of banning foreign capital that was chosen by the more nationalistic Mexican state during the same period.

During the 1970s, the Brazilian regime began to introduce semi-competitive legislative elections, while progressively extending contributory old-age pensions to peasants and to the urban and rural poor, essentially for patronage motives (Weyland 1996). Education and health-care outcomes were nonetheless disappointing, when compared to those of non-democratic Mexico or, *a fortiori*, to the region's democracies. Both the absence of land reforms and ineffective education-promotion efforts[18] explain why income inequality was, in 1980, far higher in Brazil than in Mexico, with a Gini coefficient reaching 0.58 for the former against 0.54 for the latter, far above the regional average of 0.48 (Haggard and Kaufman 2008: 83).

What happened during the post-independence period thus explains, in part, the divergence between the two countries' economic systems. During the 1980s, Mexican and Brazilian economies were, like most Latin American economies, severely hit by macroeconomic crises and, consequently, pressed by external actors (creditors or institutional financial organizations) to reform their social policies and market regulations. GDP growth was durably depressed, dropping to annual averages of 1.6 and 1.9 for Brazil and Mexico respectively during the 1980s and to 2.2 and 3.7 in the 1990s, after having recorded high levels (7.3 and 6.7 respectively) from 1960 to 1980 (Haggard and Kaufman 2008: 187). Reform content was similar in the two countries, with social protection being progressively shifted to private actors and families, labour, capital

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[18] Although, in the early 1980s, after the enactment of a constitutional amendment requiring 15% of Federal transfers to be spent on primary education by the states, priority was given to universities, with the consequence that illiteracy rates have long remained at far higher levels in Brazil than elsewhere in Latin America, including Mexico (Haggard and Kaufman 2008).

and product markets being deregulated and opened up to foreign competition, and macroeconomic balances being restored. The modalities of implementation, however, were totally different, thereby leading to significant differences in the final shape of their economic systems.

13.3.2 Reforming Institutional Systems in Times of Crisis

The financial crisis that struck Mexico in 1982, brutally and durably modified the country's institutional trajectory. A new technocracy, more supportive of neo-liberal policies, was substituted for the former pro-industrialist one, so that reforms were implemented drastically, since their implementation could not, unlike that of Brazil, be adapted to local conditions by an experienced bureaucracy. Neo-liberal reforms were implemented by successive non-democratic technocratic governments, so that their content could not be made less harsh either by bargains between government and political opposition or unionized collective action, or by the need to secure the political support of workers and the poor, as in Brazil (Haggard and Kaufman 2008). Import substitution was abruptly abandoned, and the whole strategy reverted towards the promotion of exports by opening up the Mexican economy to trade and foreign investment, notably in the context of the NAFTA (Rivera Rios 2014). Goods and labour market regulations were reformed in order to attract US foreign direct investment (FDI) in the "Maquiladora" zones. Nevertheless, no particular effort was made by successive governments to accompany this shock therapy by an industrial policy that might have eased the emergence of an input-supplier industry and its vertical integration to foreign-owned export industries (Bizberg 2011). While Mexican state-owned enterprises were massively privatized, wages were strictly controlled through corporatist arrangements with unions in order to increase inward US FDI. Meanwhile, high state regulation over the labour market was maintained, notably via political control over corporatist unions and state control of salaries. The product market, characterized as *idiosyncratic*, became strongly dualistic, with certain sectors, like the traded goods ones, being deregulated, while others were not. The labour market, on the

contrary, has remained highly regulated via the highly corporatist practices of government-supported unions. This explains the paternalistic nature of the Mexican labour market identified in Part II.

The privatization process, implemented without consensus among the different components of the elite, finally divided up further the dominant political coalition into factions investing considerable resources in rent-seeking activities (Rivera Rios 2014). During the period 1984–1994, the bipolarization which opposed the residual proponents of statist capitalism (including industrial and rural workers as well as members of the urban lower-middle class), and new liberal pro-market elites (associating agro-business and globalized firms) led to bad macroeconomic outcomes (Bizberg 2011). This weakened the Statist capitalist sectors and favoured the globalized alliance of agro-mineral and finance capitalists, an alliance which was to gain increasing political influence under Fernando Henrique Cardoso (Petras 2013). By the late 1990s, the share of agro-mineral industries therefore reincreased, while that of manufacturing and technological industries started to decline, after decades of regular increases. As a result, growing inequality and high unemployment increased the dissatisfaction of the urban lower and middle classes.

In the 1990s, when more neo-liberal policies were also implemented by Brazil, the successive governments chose to follow heterodox and mixed paths of reforms. This trend was confirmed by Lula's reluctance to implement the standard mix of deregulation and monetarist policy promoted by international financial institutions. Moreover, the democratic setting introduced by the 1988 constitution permitted effective opposition to neo-liberal reforms. The trade unions, which succeeded in remaining autonomous and covering a broad share of salaried workers (27% in the early 2000s), continued to be key actors in the political and socioeconomic reforms throughout the whole period. They negotiated with the successive governments and resisted unilateral labour market deregulation. As a result, Brazil is characterized in this study, like the majority of European countries, by a *coordinated labour market*.

Since the early 1990s, unemployment rates have been systematically higher in Brazil than in Mexico (respectively 9.4% and 2.3% over the

period 2001–2003).[19] Because of a more highly-organized opposition, the structural reforms of Brazil could not introduce as much liberalization as those of Mexico, especially as regards welfare systems. Meanwhile, the successive technocratic governments significantly eroded the welfare state by transforming their former corporatist pay-as-you-go system into a more Anglo-Saxon assistance-based scheme. Ambitious programmes, like *Oportunidades*, comprised in the *Seguro Popular plan*, were simultaneously set up to alleviate poverty, especially in rural areas. The Brazilian welfare system has, in fact, followed an exactly inverse trajectory to that of Mexico. At the onset of the democratic era, that system came over as a minimalist Universalist one (Bizberg 2011), but it was to evolve, during the 1990s and 2000s, towards increased coverage and inclusiveness. Although both countries' welfare systems are classified as liberal in the present analysis, they have, in fact, followed two opposing pathways, with contrasted implications in terms of welfare for their populations. As a result, Brazil records levels of public spending in social programmes that are twice as high as those of Mexico, and the minimum wage has increased more regularly in the former. Inequality has, accordingly, decreased faster in Brazil than in Mexico over the last two decades (Bizberg 2011).[20]

Bizberg and Théret (2012) claim that the success of the Brazilian hybrid model of capitalism is thus explained by two key features: first, the long-term affirmation of an autonomous state, whose action is perceived as legitimate, since it is based on broad consensus between the various sociopolitical groups about the objective of economic growth; and second, the existence of powerful private agents capable of diversifying and upgrading their industries. As explained above, the Mexican experience has been somewhat different, with major implications for the shape of their capitalism. Given the domination of politically connected import-substituting entrepreneurs and the high levels of state regulation over the economy, private sector entrepreneurship could not be fully independent from the state until the reforms of the 1980s introduced by the newly-elected liberal PAN government, which dismantled the for-

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[19]Today, after a decade of accelerated growth driven by the commodity price boom, unemployment rates have finally converged, to approximately 5.0%, in the two countries.

[20]In 2012, the Gini coefficient was still higher for Brazil (0.52) than for Mexico (0.48).

mer developmental coalitions. During the 1990s, technological upgrading was made even more difficult by the coexistence of highly protected sectors, such as oil, electricity or education, and with a manufacturing sector whose comparative advantage was based on the absence of any protection. Simultaneously, no political effort was placed on education, with detrimental effects on the potential of innovation and technological upgrading of Mexico.

To conclude, responses to the 2009 crisis were quite different in the two countries. Whereas Mexico adopted mostly defensive measures, Brazil tried to consolidate its model of hybrid capitalism by significantly adjusting its social and economic policies (Bizberg 2011). This probably explains why Brazil is characterized, today, by a *Hybrid-Idiosyncratic* economic system, with a coordinated labour market, as in European continental or socio-democratic capitalisms, whereas its social protection is predominantly liberal. As a result, Brazilian capitalism has succeeded in organizing a complex process of industrialization and technological diversification, making Brazil an exporter of technology (planes), as well as of natural resources and agricultural products. Bizberg and Théret (2012) have qualified this Brazilian capitalism as "developmental", in sharp contrast with the Mexican model, which they have labelled "dependent" or "defensive flexible", in reference to the deregulation strategy that was adopted during the 1980s to organize the Mexican economy's openness on the ruins of the former ineffective import-substitution strategy.

13.4 Indonesia and Malaysia

Indonesia and Malaysia are two important emerging economies of Southeast Asia that are considered as newly industrialized countries. They are, respectively, the first and third largest economies in ASEAN. Geographically, they are separated by the Strait of Malacca in their western part, but share more than 2000 kilometres of a long land border on the island of Borneo. The two countries enjoy similar tropical rainforest climatic conditions, and possess somewhat similar natural resources, especially petroleum, natural gas, tin, rubber and palm oil.

Indonesia, the fourth most populated country in the world, is far more heavily populated than Malaysia. As a vast "archipelago state", it brings together hundreds of distinct native ethnic and linguistic groups. For the same reason, but on a much smaller scale, Malaysia is also a multi-ethnic and multicultural state.

Indonesia and Malaysia underwent colonization from the fifteenth century onwards, respectively under Dutch and British rule. They gained independence in rather similar conditions, following the Japanese army's invasion and brutal occupation during World War II. In both countries, foreign occupation spurred nationalism and a culture of rebellion against any form of external domination, increasing popular support for independence and breeding a strong national identity in countries marked by pronounced ethnic, linguistic and religious fractionalization. Indonesia gained independence from the Dutch as early as 1945, while Malaysia rid itself of British "protection" in 1957, after a long period of institutional instability and sporadic guerrilla warfare. The available data show that in the early 1960s, the level of development of these countries—measured by per capita GDP—was comparable, at respectively 977 and 1,455 dollars per capita.[21] Malaysia was already wealthier than Indonesia, although its economy was some eight times smaller.

That noticeable difference, combined with similarly sizable differences as regards human development,[22] may call into question the comparability of these two countries' institutional trajectories. Nevertheless, it turns out that the available data vastly overestimated the real differences between Indonesia and Malaysia that prevailed at the very beginning of their modern development trajectories. In fact, the Malaysian data of that time concerned the Federation of Malay, as it then existed, which still included the relatively wealthy and developed Singapore. Indicators, such as the literacy rate, concern only Peninsular Malaysia, thereby excluding the less developed and poorer East Malaysia.

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[21] 1990 International Geary-Khamis dollars data collected from the New Maddison Project database, Bolt and van Zanden (2013).

[22] The available data show that the literacy rate, life expectancy and infant mortality in Malaysia were respectively about 53%, 59 years and 67 per thousand in 1960 compared to 40%, 45 years and 149 per thousand in Indonesia.

Starting from a relatively similar initial situation, Indonesia and Malaysia have experienced very different development trajectories[23] that have led them to experience contrasted contemporary socioeconomic outcomes. The two countries have experienced parallel high GDP growth trajectories during the last 50 years[24] that only started to diverge in the aftermath of the Asian crisis. These parallel sustained growth spells, however, would not have the same effects in terms of economic development. For the World Bank, whereas Malaysia is currently a higher middle-income economy, Indonesia remains a lower middle-income country.[25] Although the two countries experienced exactly the same HDI improvement between 1980 and 2010, Indonesia is outperformed by Malaysia as regards various social indicators, like gender inequality, malnutrition prevalence or access to improved water, and more than a fifth of the Indonesian population lives under the absolute poverty line of $1.25 a day. Though Malaysia seems to have managed to eradicate absolute poverty, the country records, however, significantly higher inequalities than Indonesia.

As regards political aspects, Malaysia is a constitutional monarchy that has been admirably stable since the country's independence, despite the fact that ethnicity is a significant force in politics, with many political parties being ethnically based. Since 1969, and the introduction of the New Economic Policy, affirmative action has been enforced almost constantly to advance the socioeconomic situation of the *bumiputera*, considered as the original inhabitants of Malaysia, over recently established Malaysian Chinese and Malaysian Indians. By providing the *bumiputera* with preferential treatment in employment, education, housing and business, these policies generated high interethnic resentment.

The political history of Indonesia is quite different, with Sukarno, an influential nationalist leader elected in 1945, having maintained his power by ensuring a continuous balance between two main oppos-

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[23] It should be noted, however, that the broad economic policy frameworks of Indonesia, Malaysia and the rest of Southeast Asia followed rather similar trajectories during the second half of the twentieth century, unlike those of other developing economies. See Minns (2001).

[24] Very few countries in the world experienced a higher average GDP growth than Malaysia and Indonesia during this period.

[25] Structurally, the difference is also manifest, since more than 53% of the labour force participate in services in Malaysia and 36% in the industry, whereas 39% of Indonesian workers still participate in agriculture and only 22% in industry.

ing forces, the military and the Communist party of Indonesia. After a coup in 1965, a violent anti-communist purge that cost the loss of many lives, General Suharto managed to outmanoeuvre a politically weakened Sukarno. His authoritarian administration, supported by the US government, encouraged FDI, which was to be a crucial factor behind the 30 years of growth that were to follow. Unfortunately, this period of externally driven affluence would finally be undermined by the adverse economic effect of extremely corrupted elites, with the Asian crisis spelling the end to Suharto's regime in 1998. Since then, Indonesian political and governmental structures have undergone major reforms in order to restore democracy, with the first direct presidential election being held in 2004. Although relations among different religious and ethnic groups are largely harmonious, political instability, social unrest, corruption and armed separatist conflicts still considerably affect Indonesian political stability.

From the perspective of their current institutional system, Indonesia and Malaysia differ substantially. Our analysis has classified Malaysia as *Globalization-Friendly*, and Indonesia as *Informal* (*Weak State*). Malaysia is a typical *Globalization-Friendly* economy that combines *export-oriented liberalized competition* and *upgrading export-oriented education*. It also presents both a *mature financial market* and a *liberal labour market* that make it resemble an *LME*, except for its social protection mode, which remains based on private transfers. By contrast, the institutional system of Indonesia (*traditional agriculture*, *informal labour market*, *social insecurity*, *idiosyncratic education* and *idiosyncratic finance*) is rather close to the *Informal* (*Weak State*) model to be observed in less-developed economies.

The sharp contrast between the post-independence institutional trajectories of the two countries can be traced back to three critical elements. First, their industrialization strategies, in the wake of independence, were radically opposed, thereby deeply influencing the evolution of the two countries' institutional systems. Second, the structure and type of sociopolitical support for institutional reforms also differed during that period, with less visible, but arguably stronger, long-term influence on both the future shape and performance of the system. Third, the Asian crisis also marked a critical juncture, since the two countries responded differently to the shock, in line with their own political economic constraints.

13.4.1 Two Post-Independence Trajectories of State-Led Industrialization

At an initial stage, Malaysia's economic development was driven primarily by the plantation and mining export sectors, with petrol, tin and rubber exportations constituting the principal resources of the state-oriented economy. Export income was redistributed in favour of traditional, predominantly Malay, peasant farmers via various agricultural development policies (pricing and credit delivery), and rural infrastructure or basic social service provision (Haggard and Kaufman 2008). The then predominant Chinese traders and Indian mine and plantation workers were deliberately excluded from the benefit of welfare programmes, which explicitly aimed at promoting the emergence of a native Malay upper-middle class. During the 1960s, the Malaysian economy opened up to trade and foreign investment, although remaining highly state-oriented, with macroeconomic plans creating particularly stable economic conditions. While this policy environment provided a favourable investment climate and led to good export performances, the wealth thus generated was reinvested to diversify the Malaysian economy into such higher value-added products as high-yielding rubber clones, oil palm or hardwood. As foreign investment accrued to the plantation sector and to the mining industry, severe workforce shortages soon required that the Malaysian labour market increase its openness to foreign workers from China and India. This contributed to the creation of a "plural"—but fairly unequal—Malaysian society, with wealth being unevenly distributed between the rural Malayan and the foreign populations involved in urban modern industries (Lal and Myint 1996).

The triangular relations between foreign investors, immigrant workers and the indigenous Malay population led to the rise of ethnically-based political parties and to increasing horizontal hostility. In 1969, when violent riots between Malays and Chinese took place, the Malaysian government was prompted to shift political priorities towards income and asset redistribution among the native Malays, Malaysian Chinese and foreigners. The ensuing *New Economic Policy* chiefly relied chiefly on the creation of state-owned enterprises, with the main objective of this policy being to increase the share of the economy held by the emerging

bumiputera urban middle class. The objective of 30% Malay ownership of all assets resulted in economic growth benefits accruing more to the native Malayan population, as well as in an undeniably backward step for democracy (Drabble 2000).

During the following period, successive governments pursued outward-looking policies and maintained an open economy, underpinned by sound monetary and fiscal policies and the continuous efforts of the government to attract foreign investment, notably by securing transactions and developing workforce training. Industrial diversification was promoted by means of high state interventionism, which resulted in the economy rapidly becoming less agriculture-based and more modern manufacture- and service-based. During the 1980s, in line with the generalized trend in cutting back public expenditure and increasing privatization, the priority goal of governmental action began to shift from equity to growth and stability, with emphasis being placed on market deregulation and labour cost reduction to continue attracting FDI and promoting export competitiveness. In a typical liberal logic of social protection, public transfers stopped stabilizing the Malay population's well-being by redistributing export revenues and maintaining high levels of subsidies and prices control, with welfare benefits being brutally restricted to the aged and disabled (Haggard and Kaufman 2008). The Malaysian economy then started to move from a *Statist* (*Resource Dependent*) model to a *Globalization-Friendly* one. During the 1990s, the Malaysian export-oriented economy succeeded in diversifying into science, tourism, trading, knowledge-based services, the defense industry and, above all, into manufacturing (semiconductors, microchips, electrical goods, ICT products), with GDP increasing by 8.0% per year. Yet, as shown by Saari (2015), income growth is affected less for ethnic Malays than for Chinese and Indians. As the public sector is dominated by Malays and is insensitive to export growth, most policy reforms have had limited effects in reducing interethnic income inequality.

As for Indonesia, its rapid economic expansion was also initially based on natural resources (crude oil, natural gas, tin and copper), with the oil boom boosting growth rates by 6% per year from 1962 to 1980. The central problem faced by Indonesia was to maintain the different parts of this archipelago country within the broad national boundaries inherited

from the colonial period. Indeed, the politically dominant region (the island of Java) was less abundantly endowed with natural resources than the peripheral regions, which produced most of the export revenues. The authoritarian President Sukarno, nevertheless, successfully forged a sense of Indonesian nationhood that was able to coexist with strong regional identities. The problem of interregional distortion of income distribution was complicated by the strong hostility of the natives towards the more economically prolific Chinese immigrants. From the late 1940s to the mid-1960s, the Sukarno authoritarian nationalist regime proceeded to the wholesale nationalization of foreign-owned assets, repressing Chinese middlemen, moneylenders and shopkeepers in the rural areas, and implementing intensely inward-looking economic policies, with detrimental effects on export industries and on government revenues and capacities. When General Suharto ousted Sukarno in 1966, the new regime had to adopt a classic IMF programme and to implement sound stabilization and liberalization policies. The so-called "New Order" state was then able to master the dominant political coalition by cleverly controlling the different business elites, making use of the entrepreneurial and managerial capacity of the Chinese, as well as their commercial and financial connections with Singapore and Hong Kong, to help large state-owned enterprises (Lal and Myint 1996). The regime also pursued a programme of domestic and foreign trade liberalization and strongly encouraged foreign investment, so that the economy started to shift towards outward-looking policies, with a strong commitment to the principles of a balanced budget and convertible currency. The effects of such trade liberalization on regional poverty in Indonesia strongly relied on the reductions in tariffs on intermediate goods (Kis-Katos and Sparrow 2015).

The significant gains from oil price windfalls led to a 545% increase in Indonesian GDP per capita during the 1970s, with an efficient system of management of this natural resource windfall limiting "Dutch disease" effect.[26] Good economic performance fed increased investment in social infrastructure, irrigation and agriculture. This even prompted massive FDI in export-oriented industries. At the same time, the regime sought to maintain sociopolitical stability throughout the whole territory

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[26] For example, the government pursued sound but unpopular macroeconomic policies, and proceeded to a sizable devaluation during the downswings of the early 1980s.

by redistributing a large share of its export rents. As a consequence, the whole of Indonesia experienced an unmatched reduction in the incidence of poverty in urban and rural areas.

13.4.2 The Post-Asian Crisis: Diverging Paths of Institutional Reform

By the mid-1990s, Indonesia and Malaysia were both perceived as being competently run economies, with their popular leaders having presided over decades of impressive economic growth and relative stability. The Malaysian economic model was liberal, but its political regime, although officially democratic, was somewhat authoritarian. The Indonesian model of a mixed liberal-statist economy, accompanied by tight social control by the military, is known as the "*Pancasila* economy" (Case 2001). Indonesia and Malaysia thus represent two variations of the Singaporean, or Asian, model of political economy: outward-orientation, with strong economic, social and political control by the government. Nevertheless, they show critical differences with respect to the political economy of reforms, with those differences contributing to explain the two countries' divergent situations at the end of the 2000s.

By the late 1980s, several issues had progressively emerged as potential future concerns for the Indonesian economy, since they would, in the long run, hinder recovery from the 1997 crisis and the stabilization of growth. First, despite its growing export-orientation, the Indonesian economic system was somewhat akin to a typical Statist-redistributive economy. This is testified by such features as the pivotal role of government in production, price control, and redistribution, which resulted in numerous market and policy distortions, pervasive corruption and rent-seeking. Entrepreneurship and foreign investment finally appeared riskier than in the other Asian economies, with detrimental consequences on the Indonesian economy's capacity to provide its large population with modern and productive occupations. Second, the considerable income transfers from the outer islands to the initially poorer Java, eventually strengthened inter-groups' horizontal inequality and triggered separatist movements, thereby undermining

the fragile national cohesion. Third, the labour market became highly unstable and adversarial, with strong and well-organized labour militancy antagonizing foreign-owned enterprises that attempted to evade the stringent labour regulations. Fourth, constant inflation during the period durably hindered the emergence of an Indonesian lower middle class. All these potential sources of distributive conflicts ended up by undermining collective support for government policies, with the deleterious social and economic effects of these conflicts being worsened in periods of crisis.

Meanwhile, Malaysia showed a far higher capacity to build widespread coalitions supportive of the outward-oriented industrialization strategy. During the first two post-independence decades, the semi-democratic regime managed to durably eliminate the left political opposition and labour organizations, especially by imposing heavy controls on the labour market (Jomo 1986). Simultaneously, a one-party democracy was constituted around an evolving, but stable, political alliance between the dominant United Malays National Organization (UMNO) party, and the increasingly influential Chinese ethnic part of the population, which had direct interests in business-oriented reforms. As a result of the sustained effort to promote access to economic resources for an ever-increasing share of the Malayan-born population and for the economically dominant Chinese ethnic group, the successive economic strategies were supported by a broad growth coalition, encompassing entrepreneurs, middle-class salaried workers and foreign multinationals. Several episodes of political and economic crisis have, therefore, progressively shifted the sociopolitical equilibrium towards competitiveness and attractiveness objectives, with this new political priority progressively outweighing the former redistributive objectives.

Consequently, while the Malaysian institutional system, slowly but surely, moved from a Statist economy to an attractive export-oriented one, Indonesia experienced a rare episode of institutional disruption, with its Statist export-oriented system being unable to eliminate broad areas of institutional informality. Moreover, the Indonesian regime could not invest, unlike that of Malaysia, in the type of public goods that would have provided its rulers with sufficient capacities to commit themselves

to a timely consistent strategy of reforms. The Indonesian economy has, consequently, remained both highly statist and informal.[27]

The ways in which Indonesia and Malaysia managed to recover from the Asian financial crisis were also markedly influenced by their differences in terms of political economy and state capacity. In 1997, a catastrophic chain of events led to massive depreciations of both the Malaysian ringgit and the Indonesian rupiah, depreciations that were associated with heavy stock market losses in each country. In both cases, the sharp economic contraction[28] also rapidly turned latent ethnic animosity into effective violence. In response to the economic and social crises, the two countries came to adopt radically different strategies. In Indonesia, the political power's inability to establish a thoughtful and sustained approach to the crisis[29] led to the resignation of President Suharto, who was confronted with mass urban violence and rifts within his party's ranks. Finally, the peaceful transition to democracy was accompanied by the implementation of a very unpopular and socially costly reform package imposed by the IMF. Malaysia chose to tackle the problem in a very different and authoritative way, by simply turning down the IMF economic "package" of tight monetary policies and social spending cuts, thereby demonstrating an effective political capacity to keep control of the country's development trajectory. The government shifted from a floating exchange rate regime to a pegged one, imposed extensive capital account restrictions by banning short-term selling, loosened monetary policy and expanded public spending, with the consequence that recovery was extremely rapid.[30]

For Pepinsky (2009), these contrasted responses to the crisis may be traced back to the different ways in which the authoritarian regimes tried to minimize the burden of adjustment faced by their respective supporters.

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[27] The two countries' scores for the 'Ease of doing business' and 'Corruption perceptions' indexes are symptomatic of this institutional gap. In 2013, the 'Ease of doing business' index ranked Malaysia 8th in the world, whereas Indonesia was ranked 116th. As for the 'Corruption perceptions' index, Malaysia was ranked 53rd *versus* 114th for Indonesia.

[28] During 1998, GDP contracted by nearly 8.0% in Malaysia and more than 13.0% in Indonesia.

[29] As pointed out by Pepinsky (2009), "*for ten months, the regime's adjustment policies shifted wildly: tight monetary policy followed by loose monetary policy, promises of fiscal and trade reform made and then broken, subsidies protected and then cut, bailouts offered and then denounced*".

[30] At the same time, Prime Minister Mahatir, backed by security forces, preserved the burgeoning Malaysian democracy by crushing the country's first truly pan-ethnic democracy movement.

While trying to shift the adjustment costs away from their political supporters, Indonesian leaders ended up by implementing incoherent and unsustainable strategies, simply because their supporters expressed mutually incompatible preferences (see Bandiera and Levy 2011). In Malaysia, the regime adopted its supporters' compatible preferences and survived, even though the use of capital controls came at the expense of basic civil liberties and other political reforms. At the same time, the autocratic and paternalistic Indonesian regime, with its willingness to comply with the requirements of international donors, has finally led the country to a less favorable economic situation. During economic crises, conflicts about adjustment policy and regime survival are, therefore, fundamentally intertwined.

13.5 Articulating Institutional Trajectories and Institutional Complementarities

In the previous sections, several critical junctures and structural elements were advanced to explain the contrasted post-independence institutional trajectories of six countries. We also explained why some systems of institutional governance became dysfunctional, whereas others finally brought about positive development outcomes. The present section aims at taking stock of the main elements of explanation that have emerged from comparative analysis. We also attempt, at the end of this section, to articulate the trajectories highlighted by the country studies with the matrix of *de jure/de facto* and progressive/regressive complementarities used throughout the book.

In all six countries, macroeconomic crises and, more particularly, their ensuing reforms, have had a critical influence on the institutional trajectories. Mexico and Indonesia, as well as Cote d'Ivoire, complied with externally imposed reforms which they more or less fully implemented. When liberalizing institutions were only partially respected, institutional systems ended up by articulating non-complementary institutions or regulations, as when selective deregulation of the sectors of natural resources and agricultural commodities (Indonesia and Cote d'Ivoire), or of low-cost manufactured exports (Mexico) was introduced in economies that

otherwise remained highly state-controlled. As a result of these sectoral reforms, these polymorphic institutional systems soon became dysfunctional (as illustrated by the final position of these countries in the lower panel of Table 13.1).

The distribution of the costs of adjustment policies generally played a key role in the capacity to quickly recover from crisis and in the stability of the prevailing governance system. In certain countries, where the benefits of growth had been essentially polarized on elites prior to the crisis, the social cost of adjustment to the crisis has spread over the whole population, with detrimental consequences for social stability and institutional governance legitimacy. In Cote d'Ivoire and Indonesia, for example, IMF programmes have systematically spurred horizontal conflicts, with adverse effects on the effectiveness and consistency of reforms. Conversely, the reforms in Ghana and Malaysia were based on broad coalitions that were highly representative of all sectors of the population. Equally, Mexico and Brazil managed to comply with externally imposed reforms in very different ways. Whereas the incumbent rulers in Brazil were both willing and able to sustain the existing social contract, in Mexico, on the contrary, they tried to break it. Section 13.3 has also insisted on the critical role of political leaders in explaining the co-evolution of economic and political institutions in the two countries.

External factors have also strongly contributed to the sustained influence of these initial critical realignments of objectives over policy choices. If external influences did certainly orient institutional reforms in certain countries in our sample, they did not necessarily have the same impact on development outcomes. The type of post-colonial relationship, for Cote d'Ivoire or Malaysia, or the Cold War influence in the case of Latin America and Asia, have durably influenced the composition of these countries' dominant coalitions, as well as their attendant policy choices, during the immediate post-independence period. During the 1980s, the combined influence of international financial institutions and foreign firms significantly shaped the reorientation of Mexican and Malaysian development policies towards greater integration to world value chains, thereby driving important changes in the institutional socioeconomic model with, however, contrasting economic consequences.

Institutional features are, at the same time, related to a country's development strategies, and depend on the political equilibrium underlying such strategies. By orienting the incentives delivered to firms and other economic agents in specific directions, national development strategies, and their inflections, contributed to shaping the institutional demands of firms and workers in all six of the cases studied here. At certain junctures, the adoption of more convenient institutions enabled prevailing economic constraints to be eased or even removed, and the socioeconomic objectives attached to the development strategy to be more fully attained. In turn, the nature of newly introduced institutions, as well as their complementarities or non-complementarities with existing ones could, in some cases, durably modify the economic trajectory, thereby affecting the content and objectives of the particular development strategy.

Moreover, the effectiveness of such cumulative shifts of social preferences and institutional arrangements relied on the type of political economy involved in the reform process. As an illustration, we have seen that, in the course of their economic development, the initial economic growth objective of certain countries could be progressively replaced by that of a more equal distribution of the benefits and costs of economic transformation. This is what was observed for Brazil (Alston et al. 2013), but also for Malaysia, in the 1990s. These two cases show that democratic regimes have tended to be more effective in organizing the expression of social preference through polls or political bargaining, as clearly shown by the opposition between the reform effectiveness and efficiency of Brazilian and Ghanaian democracies and that of Ivoirian and Mexican non-democracies. The first two, democratic, regimes reacted more rapidly and effectively to changing economic conditions and social objectives, reforming policies and institutions in the sense of the common interest, thereby obtaining broad adhesion and commitment to reforms in their population.

At this point, it would seem appropriate to show how the institutional transformation of our six countries has impacted the nature of the institutional complementarities underlying their socioeconomic systems. In order to do so, we have reported the institutional trajectories described in this chapter onto the matrix of complementarities introduced in Chap. 3.

Brazil, Indonesia, Malaysia and Mexico, although they initially chose statist modes of socioeconomic governance that showed their efficiency to mobilize saving and capital investment in the first stage of economic development, ended up with very contrasted polymorphic models of governance. On the one hand, Brazil and Malaysia embarked on reforms that made their institutional highly hybridized system rather functional, with particularly high economic development outcomes for the latter. Brazil's *Hybrid-Idiosyncratic* model is, by definition, highly polymorphic, assembling types of institutional governance generally found in *Statist* (*Resource Dependent*) and *Globalization-Friendly* models, with positive economic development outcomes during the last 15 years. On the other hand, Indonesia and Mexico could not build such consistent systems of institutional governance, as their dysfunctional mixed systems drove more negative outcomes in terms of economic development. Unlike the Malaysian export-promotion and diversification strategy, the Mexican strategy of low skill-intensive platform FDI failed to encourage industrialization. One explanation is that the export sector was isolated from the rest of the economy, which remained heavily regulated or poorly productive. Indonesia followed a similar shift from a purely statist protected economy to a mixed outward-oriented and statist one with, nonetheless, a larger share of informal activities than for Mexico. For these two countries, the institutional transformation trajectory has brought about dysfunctional systems that have finally proven highly unstable, because of high corruption levels and criminal (Mexico) or religious (Indonesia) violence. This justifies the two countries' final positions in Table 13.1.

For the two African countries, which were initially characterized predominantly by isomorphic informal and weakly effective institutions, their post-independence trajectories attained highly contrasting endpoints. Whereas the Ghanaian institutional system is closer to the *Globalization-Friendly* model, with strong political leadership of a guardian type,[31] the Ivoirian one remains more akin to the *Informal* (*Weak State*) model, with a deeply factional authoritarian predatory state. In

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[31] The guardian state is opposed to the predatory state in the Lal and Myint (1996) typology of political economies in developing countries, since the former's agenda can be supposed to serve the collective interests whereas, in the latter, the elites are only marginally concerned by the welfare of the country's citizens, except if it increases predators' gains (Krueger 1993, 62). When the state is

Cote d'Ivoire, the post-independence influence of the former colonial power reinforced the stability of the predatory political equilibrium, with detrimental effects on institutional reform opportunities and economic development. On the contrary, Ghana has succeeded in becoming autonomous and in securing a sustained political equilibrium oriented towards maximizing welfare for the whole nation, notably by introducing increasingly inclusive institutions. Although the Ivoirian institutional system could not escape the *Informal* (*Weak State*) model, the Ghanaian institutional governance system has been upgraded and become highly functional by seizing external opportunities and by relying on high sociopolitical stability and state capacities.

In this chapter, we have compared the historical trajectories of three regional pairs of developing countries and described what drove countries with fairly similar initial conditions to adopt contrasted institutional systems. Four main factors have been highlighted as having played a critical role in the institutional trajectories of the six selected countries: political and economic crises with their ensuing reforms, external influences, development strategies and the political economies underlying reforms. We were able to confirm that, in the aftermath of political (decolonization) or economic shocks (external or domestic financial crises), different domestic conditions (in terms of dominant coalitions or of the degree of democracy), together with different economic and political relationships with the former colonial power and transnational corporations, gave rise to diverging institutional trajectories. Whereas certain countries could progressively assemble polymorphic and functional systems of sectoral institutions, others failed to do so since they could only combine types of institutional governance that would appear, *ex post*, to be non-complementary and, therefore, dysfunctional. A more systematic analysis of other countries' trajectories would, nevertheless, be required to generalize our results and help economists draw from those regularities testable assumptions for studying institutional change in developing countries.

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factional, it serves the interests of a faction, unlike the autonomous state, whose action is not influenced by the vested interests of the factions (Lal and Myint 1996).

References

Abreu, M. de P., and D. Verner. 1997. *Long-term Brazilian Economic Growth: 1930–1994*. Paris: OECD Development Centre.

Alarcon, D., and T. McKinley. 1992. Beyond Import Substitution: The Restructuring Projects of Brazil and Mexico. *Latin American Perspectives* 19 (2): 72–87.

Alpine, R.W., and J. Pickett. 1993. *Agriculture, Liberalization and Economic Growth in Ghana and Côte d'Ivoire: 1960–1990*. Paris: OECD Development Centre.

Alston, L.J., M.A. Melo, and B. Mueller. 2013. Changing Social Contracts, Beliefs and Dissipative Inclusion in Brazil. *Journal of Comparative Economics* 41 (1): 48–65.

Andrews, M. 2013. *The Limits of Institutional Reform in Development: Changing Rules for Realistic Solutions*. Cambridge, MA: Cambridge University Press.

Bandiera, O., and G. Levy. 2011. Diversity and the Power of the Elites in Democratic Societies: Evidence from Indonesia. *Journal of Public Economics* 95 (11–12): 1322–1330.

Bardhan, P. 2010. *Awakening Giants, Feet of Clay: Assessing the Economic Rise of China and India*. Princeton, NJ: Princeton University Press.

Berr, E., F. Combarnous, and E. Rougier. 2009. Too Much Consensus Could be Harmful: Assessing the Degree of Implementation of Stabilization and Structural Policies and Their Impact on Growth. In *Monetary Policy and Financial Stability. A Post-Keynesian Agenda*, ed. C. Gnos and L.-P. Rochon. Cheltenham: Edward Elgar Publishing.

Besley, T., J.G. Montalvo, and Marta Reynal-Querol. 2011. Do Educated Leaders Matter? *The Economic Journal* 121 (554): F205–F227.

Bizberg, I. 2011. The Global Economic Crisis as Disclosure of Different Types of Capitalism in Latin America. *Swiss Journal of Sociology* 37 (2): 321–339.

Bizberg, I., and B. Théret. 2012. La diversité des capitalismes latino-américains: les cas de l'Argentine, du Brésil et du Mexique, *Revue de la Régulation* 11, 1er semestre.

Blanton, R., D. Mason, and B. Athow. 2001. Colonial Style and Post-colonial Ethnic Conflict in Africa. *Journal of Peace Research* 38 (4): 473–489.

Bolt, J., and J. L. van Zanden. 2013. The First Update of the Maddison Project; Re-estimating Growth before 1820. *Maddison Project Working Paper* No. 4.

Broussalian, K. 2011. Overcoming Colonial Vestiges in Côte d'Ivoire and Ghana. *Journal of Political Inquiry* 4: 1–40.

Case, W. 2001. Indonesia. In *Southeast Asia Handbook*, ed. P. Heenan and M. Lamontagne. Chicago: Fitzroy and Dearborn Publishers.

Chirot, D. 2006. The debacle in Cote d'Ivoire. *Journal of democracy* 17 (2): 63–75.

Conte, B. 2005. La responsabilité du FMI et de la Banque mondiale dans le conflit en Côte d'Ivoire. *Etudes Internationales* 36 (2): 219–229.

Dezalay, Y., and B.G. Garth. 2002. *The Internationalization of Palace Wars. Lawyers, Economists, and the Contest to Transform Latin American States*. Chicago: University of Chicago Press.

Drabble, J. 2000. *An Economic History of Malaysia, Circa 1800–1990*. Houndmills, Basingstoke, Hampshire: Macmillan Press.

Dreher, A., M. Lamla, S. Lein, and F. Somogyi. 2009. The Impact of Political Leaders' Profession and Education on Reforms. *Journal of Comparative Economics* 37 (1): 169–193.

Evans, P. 2004. Development as Institutional Change: The Pitfalls of Monocropping and the Potentials of Deliberation. *Studies in Comparative International Development* 38 (4): 30–52.

Haber, S. 1997. *How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico, 1800–1914*. Stanford, CA: Stanford University Press.

Haggard, S. 1990. *Pathways from the Periphery. The Politics of Growth in the Newly Industrialized Countries*. New York: Cornell University Press.

Haggard, S., and R.R. Kaufman. 2008. *Development, Democracy and Welfare States: Latin America, East Asia and Eastern Europe*. Princeton, NJ: Princeton University Press.

Hayes, R. 1989. *The Armed Nation: The Brazilian Corporate Mystique.* Arizona State University, Temple, Centre for Latin American Studies.

Jomo, K.S. 1986. *A Question of Class: Capital, the State, and Uneven Development in Malaysia*. Singapore: Oxford University Press.

Jones, B., and B. Olken. 2005. Do Leaders Matter? National Leadership and Growth Since World War II. *Quarterly Journal of Economics* 129 (2): 835–864.

Kis-Katos, K., and R. Sparrow. 2015. Poverty, Labor Markets and Trade Liberalization in Indonesia. *Journal of Development Economics* 117 (1): 94–106.

Krueger, A.O. 1993. *Political Economy of Policy Reform in Developing Countries*. Cambridge, MA: The MIT Press.

Lal, D., and H. Myint. 1996. *The Political Economy of Poverty, Equity and Growth: A Comparative Study*. Oxford: Clarendon Press.

Levine, R., and J. Crocietti. 1999. *The Brazil Reader: History, Culture, Politics*. Durham, NC: Duke University Press.

Levy, D., and G. Szekely. 1987. *Mexico: Paradoxes of Stability and Change*. Boulder, CO: Westview Press.

Lin, J.Y. 2009. *Economic Development and Transition*. Cambridge, MA: Cambridge University Press.

Marques-Pereira, J., and B. Théret. 2004. Mediaciones institucionales de regulacion social y dinamicas macro-economicas: los casos de Brasil y México. In *Democracia y globalizacion en Mexico y Brasil*, ed. C. Alba and I. Bizberg. Mexico: Collegio de México.

McCauley, J.F. 2013. Economic Development Strategies and Communal Violence in Africa: The Cases of Côte d'Ivoire and Ghana. *Comparative Political Studies* 42 (2): 182–211.

Minns, J. 2001. World Economies: Southeast Asia since the 1950s. In *Southeast Asia Handbook*, ed. P. Heenan and M. Lamontagne. Chicago: Fitzroy and Dearborn Publishers.

Nordas, R. 2008. Identity Polarization and Conflict: State Building in Côte d'Ivoire and Ghana. *Center for the Study of Civil War* 2008: 1–25.

Pepinsky, T. 2009. *Economic Crises and the Breakdown of Authoritarian Regimes: Indonesia and Malaysia in Comparative Perspective*. New York: Cambridge University Press.

Petras, J. 2013. Brazil: Extractive Capitalism and the Great Leap Backward. *Global Research*, July 23.

Rivera Rios, M.A. 2014. Economic Development and Historical Trajectories: An approach to Brazil and Mexico. *Problemas del Desarollo/Revista LatinoAmericana de Economia* 45 (179): 137–158.

Rodrik, D. 2010. Diagnostics before Prescription. *Journal of Economic Perspectives* 24 (3): 33–44.

Saari, M.Y. 2015. Sources of Income Growth and Inequality Across Ethnic Groups in Malaysia, 1970–2000. *World Development* 76 (1): 311–328.

Schneider, B.R. 2004. *Business, Politics and the State in Twentieth Century Latin America*. New York: Cambridge University Press.

Schneider, B.R., and D. Soskice. 2009. Inequality in Developed Countries and Latin America: Coordinated, Liberal and Hierarchical Systems. *Economy and Society* 38 (1): 17–52.

Weyland, K. 1996. *Democracy Without Equity: The Failure of Reforms in Brazil*. Pittsburgh, PA: University of Pittsburgh Press.

Zhang, J. 2013. Keeping up with the Ghanaians: A Comparative Study of Ghana and Cote d'Ivoire on Economic Development. *mimeo*. Senior Integrative Exercise, Carleton College, Department of Political Science.

Part IV

Emerging Capitalisms and Paths of Institutional Reforms in Developing Countries

14

Emerging Capitalisms and Institutional Reforms in Developing Countries

Eric Rougier and François Combarnous

14.1 Key Points

This book is about clusters of institutions and economic systems. It proposes an original typology of capitalist varieties for those countries whose capitalist nature has seldom benefited from much analysis so far: poor and emerging developing countries. Typologies are sometimes criticized as being based on a limited number of features that then tend to be generalized across national cases. The typologies of mature capitalisms, carefully elaborated in an extensive literature, can, however, scarcely be criticized as over-generalizations (Jackson and Deeg 2006). As for developing economies, they exhibit capitalist features that are likely to be fairly different from the well identified ones that have been shown for the mature country systems. Researchers, therefore, have to face both

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complex and highly "exotic" institutional systems, with very few tools adapted to analyse them.

A typological approach certainly constitutes a useful approach for identifying and comparing developing country capitalisms, for the simple reason that, so far, there have been very few proposed elaborations. The absence of firmly-based typologies of developing countries' capitalisms does not mean that those typologies cannot be found. Neither does it mean that such typologies would not be useful if they could be elaborated. We believe, on the contrary, that a typological approach provides researchers with a holistic framework that is capable of tackling expected high cross-country heterogeneity. Addressing the likely "exotic" nature of developing countries' institutional systems, that is, their possible singularity with respect to the models describing mature capitalist systems, means adopting an agnostic approach. In other words, since ideal-types of emerging capitalisms cannot be *a priori* derived from existing models or from more formal theoretical elaborations, they should be inferred from a systematic analysis of the sectoral institutional data to be observed for a sufficiently broad sample of developing countries. In order to reconcile the typological approach, commonly used by comparative capitalism (CC), with the rigorous statistical analysis of observed institutional forms and clusters, advocated by the new institutional economics (NIE), the present book has, therefore, adopted an original methodology. We have first addressed the extreme diversity of developing countries' institutional systems, and then reduced this diversity by clustering our countries into a limited set of models, understood as ideal-types.

Our statistical approach has, accordingly, enabled the diversity of institutional configurations across countries to be assessed and subsequently crystallized. It has also generated various innovative results concerning the varieties of institutional system to be observed in emerging and developing countries. Since the effects of institutions on economic development tend to cluster (Besley and Persson 2011), our core assumption has been that this needs analysing at system level, which involved the mobilizing of several dimensions of institutional governance: agriculture, education, environment, finance, product market, labour and social protection. Our approach, by thus departing from the NIE empirical logic, with its use of one-dimensional scalars to represent the whole socioeconomic system, offers an alternative contribution to

the widespread literature on the institutional dimension of economic development.

At this point, we are now able to address the main questions raised in the Introduction. How can we empirically analyse developing countries' systems of socioeconomic governance? What types of institutional complementarities are revealed by this analysis? Are there sufficiently marked, homogeneous and consistent clusters of countries to enable various models of capitalism across developing and emerging countries to be differentiated? These questions are addressed in the next two sections (Sects. 14.2 and 14.3). We then proceed to highlight two key aspects of the cross-country institutional discrepancies that emerge in Sect. 14.4. The first of these concerns the type of state intervention in socioeconomic governance; the second aspect refers to the role played by experimentation in shaping this type of socioeconomic governance. The policy implications of our results are then addressed in Sect. 14.5, with special focus being put on institutional reforms in poor countries. Finally, new horizons for research are suggested in Sect. 14.6.

14.2 Institutional Clusters and Complementarities

In line with the CC literature overviewed in Chap. 2, the approach adopted in this book has been geared towards explicitly assessing how sectoral institutions actually coalesce at system level, in complementary or non-complementary fashion. According to the standard definition, two institutions are complementary if they demonstrate higher efficiency, when combined, than when separated. Although institutional complementarities have been extensively studied in CC literature, those studies have almost always used pre-defined ideal-typical institutional models. The CC ideal-typical approach underlying institutional complementarities results in institutional isomorphism being applied indiscriminately to all sectors of the institutional system.

The approach adopted here, however, has chosen to identify and compare developing countries' capitalisms by clustering them in terms of their sector-specific regulation. This meant considering a flexible notion

of complementarities, one that is necessarily more akin to the idea of institutional coalescence or congruence than to the standard definition. Developing countries' institutional systems tend to associate sectoral regulations that have been articulated over time on a somewhat makeshift basis. Most developing countries, in fact, show essentially transitional and hybrid institutional systems, whose functionality is generally difficult to assess, because the researcher has very few theoretical criteria concerning what is complementary or not. It was this lack of clear criteria that led us to define two types of institutional complementarities: *de jure* and *de facto*.

De jure complementarities concern those to be expected on purely theoretical grounds. These complementarities generally correspond to a theoretical construct that is strongly inspired by a first-best functionalist logic: (1) each specific and isolated institution is designed *ex ante* to minimize transaction costs for the sake of collective efficiency, and (2) sectoral institutions are considered as most effective when isomorphic to the others. *De facto* complementarities are, conversely, defined as institutional arrangements lacking *a priori* theoretical justification on first-best or isomorphic grounds. They result, instead, from an institutional experimentation process, with the hybrid system's functional efficiency appearing *ex post*, sometimes rather unexpectedly.

Bearing all this in mind, we went on to analyse each sector (labour, competition, finance, social protection, education and training, agriculture and environment) separately. The sample countries could thus be clustered with respect to their similarities in terms of the institutional variables governing each specific sector. As this procedure was replicated for all seven sectors, a corresponding set of seven institutional governance types, one per sector, was ascribed to each country, in order to depict its institutional system (see general Appendix). At a second stage, the sample countries could then be clustered with respect to their specific sets of sectoral institutional governance types. The resulting clusters could finally be characterized and labelled as distinctive models of capitalism. Each cluster, therefore, groups the countries that are most similar in terms of their socioeconomic system.

Although emerging market economies share similar economic performances and tend to be perceived as somewhat undifferentiated institutional systems, our analysis shows that they have very different

institutional characteristics and cannot, accordingly, be treated as one group of homogeneous countries. Several crucial lines of differentiation between these various types of emerging capitalist economies are identified in the present work: the degree of institutional formalization, the type of state intervention in the socioeconomic system and, more surprisingly, the degree of institutional experimentation. Moreover, various forms of non-isomorphic institutional congruence have emerged from the analysis, with these *de facto* complementarities being functionally efficient, even though they significantly depart from *de jure* complementarities. This finding alone amply justifies our chosen approach, since these *de facto* complementarities would have been inaccessible to traditional ideal-typical approaches based on *a priori* defined models. The high degree of institutional interaction within and between each institutional domain, as well as the strong likelihood of unexpected *de facto* complementarities in developing countries, cast doubts on the relevance of the ideal-type-based approach in the context of emerging capitalisms. As a result, *a priori* typologies, like those proposed by the CC literature, generally built around broadly drawn types of regional capitalisms, are unable to seize unexpected or unorthodox configurations.

14.3   The 2+4 Models of Capitalism

Our analysis led to six (2+4) models of capitalism being identified: the *Liberal Market*, *Coordinated Market*, *Globalization-Friendly*, *Statist* (*Resource Dependent*), *Hybrid-Idiosyncratic* and *Informal* models. The two OECD country models, *Liberal Market* and *Coordinated Market Economies*, are mainly differentiated by their labour market regulation, centrally *Coordinated* for the latter and *Deregulated* for the former and, to a lesser extent, by their financial systems. *Liberal Market Economies* are characterized by contractual and flexible capital-labour relationship, a high degree of market competition, liberal social protection and a deep and broad financial market. *Coordinated Market Economies* articulate *coordinated labour market, decommodified social protection, democratic universal education, a liberalized competitive product market and intermediate bank-oriented finance* sectoral models of governance, together with

effective environmental governance and highly formalized and productive agriculture.

As for emerging economies, some of them share common features with the OECD group. The Copenhagen criteria have, unsurprisingly, led to a form of institutional convergence for the Central and Eastern European Countries (Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Romania, Slovenia and Slovakia) whose product market regulation needed to comply with Western European standards. These countries massively reformed their institutional systems in order to be integrated into the European Union, thereby converging towards *Coordinated Market Economies*. Latin American economies, such as Argentina or Chile, also share similarities with *Coordinated Market Economies*, because the huge market reforms towards liberalization that they undertook during the 1970s and 1980s, led them to converge towards OECD standards of regulation.

Apart from those very few emerging countries that have converged towards the OECD mature capitalisms, the bulk of developing countries can be located in four clusters that are highly specific to emerging capitalisms.

The first cluster, labelled *Informal* (*Weak State*), covers most of the poor economies that exhibit similar sets of sector-specific institutional governance types: *informal labour market, outward-oriented agriculture, statist-protectionist* product market regulation, *embryonic finance* (mostly informal), *social insecurity, weak environmental governance and narrow education*. All these sectoral types of governance, characterized by their high degree of informality, tend to coalesce; this is especially true of the poorest countries in our sample. The informal institutional arrangements used, in each sector, as substitutes for the missing state-enforced regulations and rules, are strongly isomorphic. Although informal institutional arrangements do allow the economic system of poor countries to hobble along, they also deliver bad socioeconomic outcomes, such as strong economic insecurity, high social vulnerability or low productivity, which certainly hamper long-term economic development. The strong internal consistency of all these isomorphic dimensional regulations lock the country into an institutional poverty trap, that is, a situation in which private and public investment are not coordinated because the economy

lacks the necessary protection and incentives that make investment possible. The *Informal* (*Weak State*) model can, therefore, be considered as resulting from regressive *de jure* complementarities.

The second cluster, called *Statist* (*Resource Dependent*), brings together large, densely populated economies such as China, India, Mexico or Russia which, although they have partly liberalized their external trade, remain characterized by massive state regulation of their domestic labour capital and product markets. The *Statist* (*Resource Dependent*) systems are characterized by sets of dimensional regulation that are highly isomorphic, with the operation of markets being restrained by heavy regulation and direct state intervention. In most countries of this cluster, high levels of market regulation and social transfers to the poor, often financed by export rents, are commonly used as political and economic risk reducers. The economic rationale is that the state must organize the process of economic modernization by controlling prices and entrepreneurship, with this high level of economic interventionism and loss of freedom being counterbalanced, or legitimized, by high levels of redistribution, for workers and the poor, and by opportunities of regulator capture for capitalists and firms. This group includes most of the large middle-income economies, like China, Egypt or India, which share certain features with poor countries but are, in many important respects, characterized by very singular institutional patterns. First, their product markets have partly opened up to world competition and been liberalized, at least with respect to international trade and investment. Second, they have developed financial systems that are mainly bank-regulated (higher access to financing, higher lender and borrower protection). Third, they show highly discriminating and generally dualistic labour markets, in which widespread informal sectors survive alongside more modern, often extraverted, market segments.[1] Hence, those economies remain largely under-reformed, their institutional structure corresponding more to that of low-income than of high-income economies.

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[1] It should be noted that Turkey and Tunisia, two close neighbours of the European Union (the former being associated to the EU) are located far from the high-reformers and OECD. Morocco and Egypt are even further removed, as they are both grouped with the big emerging economies that have succeeded in escaping the low-income group.

It is worth noting that such isomorphic statist regulations of labour, capital and product markets can deliver positive outcomes for poor countries, since they are well suited to state-led big push policies. The *Statist* (*Resource Dependent*) model seems to be the only one that can be considered as delivering progressive *de jure* complementarities, at least during the first stage of accumulation-led economic development. Those statist regulations may, nevertheless, become a major stumbling block for middle-income countries facing insufficient output diversification and sophistication (Rougier 2016). The *Statist* (*Resource Dependent*) model is strongly determined by path dependency and by the particular mode of state capacity building. The typical mix of high protection and patron-client relationships, directly inherited from the Natural State model discussed by North et al. (2009) is prevalent throughout the system. Unsurprisingly, ex-socialist and natural-resource rich economies are over-represented in this cluster, given the strong historical presence of a centralized state and administration in most of them. When looking at the historical trajectory of those countries, it appears that many have adopted, at some juncture in their development path, a socialist economic (and often political) model, or some alternative based on high degrees of centralization and state control over the economy.

The third cluster, called *Globalization-Friendly*, is mostly composed of smaller emerging market economies, with highly liberalized economies, as well as high levels of state intervention. The *Globalization-Friendly* model is characterized by the domination of such sectoral governance types as *deregulated labour*, *education biased towards high school* and *export-oriented liberalized competition*. It is worth noting that the countries classified in this model have generally adopted regulations that optimize their integration into the world economy. In countries like South Africa and Malaysia, the social contract tends to be based on significantly improved access to economic opportunities for broad shares of the population and on a low degree of government-based welfare. The *Globalization-Friendly* cluster includes small countries that have not experienced similar historical trajectories and that were able to set up their institutional system from scratch, or to carry out reforms independently of their former institutional characteristics. The *Globalization-Friendly* model also exhibits strong internal consistency, although it has been shaped by a process of

experimentation of sectoral institutional governance driven by the common objective of facilitating integration towards international trade and production networks. Accordingly, this cluster shows *de facto* complementarities that can be considered progressive, since the group's levels of economic and social outcomes are significantly higher than the sample average. The *Globalization-Friendly* model shows, for example, better performance than the other three developing country clusters for all governance indicators, and also exhibits higher average levels of real GDP per capita, HDI, openness and integration to globalization.

The fourth cluster, called *Hybrid-Idiosyncratic*, includes both poor and emerging countries. This model brings together countries whose highly original institutional systems cannot be subsumed under a clear-cut set of distinctive and common features. Our analytical framework has enabled a set of idiosyncratic forms of sectoral institutional governance to be identified at sector level, with these idiosyncratic forms finally tending to cluster at the second stage of the analysis. This cluster also includes countries that exhibit hybrid systems of sectoral models of governance, namely, models that are not usually associated because they do not show *de jure* complementarities. *Hybrid-Idiosyncratic* countries have, therefore, experimented original institutional sets that have been able, in some cases, to drive positive outcomes in terms of economic development.

In what concerns the hypothesis of institutional advantage, although our results are inconclusive as to which model shows the best performance in terms of economic growth, *Globalization-Friendly* countries have, nevertheless, reached higher average levels of GDP per capita, human development and trade integration than the other three clusters including developing countries. *Globalization-Friendly* countries also recorded higher Gini coefficient levels over the 1990s, before inequality went on to become significantly higher in the *Hybrid-Idiosyncratic* models during the following decade.[2] As for the *Statist* (*Resource Dependent*) model, despite higher than average population size, it showed significantly lower than average levels of poverty, from 1990 onwards, and of inequality in the mid-2000s. This cluster, as well as the *Informal* (*Weak State*), also shows greater

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[2] It should be noted, moreover, that these two latter clusters, as well as the *Informal* (*Weak State*) one, had lower than average levels of real GDP per capita during the period 1950–2000.

reliance than average on agricultural production, with exports being less diversified than the sample average. As for the broader assumption that each institutional system is better at reaching its prioritized goal than the others, it seems that the *Globalization-Friendly* does reach its goal of higher levels of trade and capital integration,[3] sometimes at the expense of rising inequality, while the *Statist* (*Resource Dependent*) has demonstrated efficiency in durably keeping poverty at low levels, albeit at the expense of microeconomic efficiency.

14.4 "Stateness" Variations and Institutional Experimentation

It is commonly considered that the degree of state intervention in markets is a critical factor of differentiation between mature capitalisms (Hall and Soskice 2001). As for developing countries, the role of the state is twofold: it should regulate markets, but also trigger long-term economic transformation. Besley and Persson (2011) explain successful economic development by the extent to which the state is able to use its legal and fiscal capacities to invest in public goods while simultaneously regulating sociopolitical violence. In their analysis of the historical formation of committed-to-development states, North et al. (2009) have also argued that equal access to different types of public goods is usually provided in a certain sequence, starting with the rule of law, followed by mass education and infrastructure and, finally, by equal participation in labour markets, including the provision of social insurance systems (Gollwitzer and Quintyn 2012). These three stages possibly correspond respectively to what is referred to in the present book as institutional formalization, investments in public goods and the establishment of more inclusive institutions via the channels of labour regulation and social protection. But this possible matching would require further empirical investigation, which is beyond the scope of the present book.

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[3] They do not show, however, levels of diversification or of terms of trade change that are significantly different from the sample average.

Almost two decades ago, Evans (1997) had claimed that forms of *stateness*, defined as "the institutional centrality of the state", were likely to vary significantly among nations. Accordingly, such *stateness* requires finer analysis by social scientists, if political behaviour and institutions are to be better understood, especially in developing nations. Our work has demonstrated that *stateness* should not be measured merely by composite scores of market state regulation, as in the International Country Risk Guide "Investment Profile" or the World Bank Governance Indicator "Quality of regulation" indicators, or the proposed "state capacities" composite indicator of Besley and Persson (2011). The present book shows that the degree of liberalization is not the prime factor of differentiation between the models of emerging capitalism. Institutional formalization, that is, the shift from local informal rules to centrally established and enforced formal rules, as well as the degree of institutional experimentation, have come over as being more decisive in explaining differences between our models.

As for the most basic dimension of *stateness*, namely, institutional formalization, heterogeneity is high across developing countries. Most countries of the *Informal* (*Weak State*) cluster have not, so far, reached the first stage of institutional formalization, which requires centrally-enforced rule of law. Their weak state is unable to invest in the type of public goods that support the emergence of self-sustaining individual and collective preferences for economic development. *Statist* (*Resource Dependent*) countries have succeeded in formalizing and enforcing the rule of law, especially for private actors, but their pattern of investment in such public goods as education is counterbalanced by market regulations that are not as inclusive as those to be found in *Globalization-Friendly*, *CME* and *LME* clusters.

Thus, there is not one unique model of "institutional centrality of the state" at work across emerging economies. On the contrary, those economies tend to cluster into three very different models with respect to the role of the state: the *Globalization-Friendly* model, in which the state is interventionist in order to increase competitiveness; the *Statist* (*Resource Dependent*) model, with the state exerting strong control over the economy and actively supporting households' means of existence; and the *Hybrid-Idiosyncratic* one, which is more heterogeneous.

It may well be the style of state intervention, therefore, and not its mere intensity, that finally matters most in understanding why some countries have managed to develop, whilst others have not. The present work has notably highlighted the fact that institutional experimentation offers a crucial explanation of the style of state intervention variations. Institutional experimentation was, in fact, demonstrated at two levels. At sector level, original *de facto* institutional arrangements have emerged. For instance, the export-oriented goods market, upgrading skills-exporting education and private transfer-based social protection, found predominantly in *Globalization-Friendly* systems, all signal emerging countries' efforts to adapt their sectoral governance to the requirements of the globalized economy. In addition, it proved possible to identify models of environment regulation such as that of the *focus-on-biodiversity*. At system level, the *Hybrid-Idiosyncratic* and *Globalization-Friendly* models offer two good illustrations of economic systems crafted experimentally, on the basis of *de facto* institutional complementarities, with these experimental complementarities having delivered, in some cases, strong economic benefits. The *Hybrid-Idiosyncratic* cluster signals two forms of *de facto* complementarities: experimentation of innovative forms of sectoral governance, and hybridization of polymorphic institutions across the different sectors of the system.

China probably provides the best illustration of this experimental approach to reforming. Even though this country has finally been classified as *Statist* (*Resource Dependent*) by our analysis, its post-1978 institutional reforms have tended to be fundamentally experimental (Qian and Xu 1993). Innovation and experimentation have reinforced the adaptive efficiency of Chinese capitalism's institutional system (Qian 1999; Ahrens and Jünemann 2011). While the household responsibility system introduced strong microeconomic incentives to increase productivity and trade newly produced goods on nascent markets, the dual-track system allowed a process of smooth transition from state-owned enterprises to private firms, by enhancing the efficiency of the former. Simultaneously, decentralization led to growing fiscal and legal autonomy for local governments, which were held responsible for the financial success of the former State-Owned Enterprises that became transformed into Town Village Enterprises (TVEs), endowed with quasi-private company objectives. Local govern-

ment could thus implement institutional solutions fully adapted to the specific needs of local actors, those local actors being consequently driven by ever-stronger economic incentives to invest in new activities. Those simultaneous reforms have, in turn, gradually increased the individual and collective opportunity costs of reforms reversals, and provided growing support for openness and privatization, with the initial reluctance regarding such reforms progressively fading away (Lau et al. 1997; Qian 2003; Bardhan 2010). Meanwhile, the domestic market was preserved by strong centrally-governed incentives to limit local protectionist policies, promote trade across provinces, and foster competition between TVEs (Qian and Weingast 1996). The process has been fully adaptive, in the sense that political reformers have always used informative feedback from the productive economy to re-shape institutions, and entrepreneurs have also used their economic power to divert the process of institution building towards their objectives (Ahrens and Jünemann 2011).

Other countries have enacted similar hybrid reforms, although by using fewer experimental ingredients than the Chinese-style dual track and TVEs. The comparative case studies conducted in Chap. 13 have described the various elements driving long-term institutional change via incremental adjustments of sectors of the whole system, thereby leading to the formation of hybrid systems. Malaysia and Brazil have experimented original institutional articulations all along their post-independence trajectory of reforms. Various elements have simultaneously conditioned and oriented the institutional experimentation process: historical critical junctures, development strategy and political economy. Critical junctures concern either political or socioeconomic realignments, that is, periods of bifurcation in socioeconomic or political governance. Such critical realignments inform about the influence that underlying sociopolitical coalitions had on policy choice. Whereas the development policies that were chosen after independence exercised a durable influence on socioeconomic institutions, as in the case of the Mexican Statist-redistributive model, subsequent strategic inflections also had significant consequences on institutional configuration, with parts of the system being liberalized, whilst others remained highly state-regulated. Finally, changes in the dominant sociopolitical equilibrium also dramatically influenced the hybrid and experimental nature of these systems.

What finally differentiates the countries that succeeded and those that failed may be located in the willingness to reform and the autonomy of reforming. In most cases, such locally adapted institutional fitness was progressively set up by an evolutionary process of trial and error, with the institutional system adapting to changes in both the local and external environment. In countries in which trade and capital account liberalization reforms were externally imposed, notably in the context of structural adjustment, such reforms generally resulted in high internal inconsistency and ineffectiveness. This was the case of numerous countries classified as *Informal* (*Weak State*) or *Hybrid-Idiosyncratic*. At system level, *Hybrid-Idiosyncratic* and *Globalization-Friendly* systems provide two illustrations of economic systems having been crafted experimentally, on the basis of *de facto* institutional complementarities, with these experimental complementarities having delivered, in certain cases, large economic benefits.

14.5   Lessons for Institutional Reform in Developing Countries

Despite the poor effectiveness of top-down benchmarked institutional reforms in developing countries, they have tended to proliferate during the last 30 years (Rodrik 2008; Andrews 2013).[4] This proliferation is based on the widespread belief that the idealized institutional design drawn from the theory of competitive markets, that is, open markets and free prices, with limited state intervention in production and distribution, is optimal for economic development (Chang 2011). As Evans (2004) puts it, the "monocropping view" of institutional reforms imposes a standardized institutional technology on undifferentiated countries. It assumes that institutional effectiveness is independent of local conditions regarding development level, sociocultural preference or social contract history. Institutions that are transferred to developing countries are, therefore, benchmarked against the allegedly successful institutions of developed countries, with a strong preponderance in favour of those

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[4] Currently, standard institutional reform advocates strengthening property rights, improving the business climate and gaining democratic accountability.

inspired by the *LME* model (Chang 2011). Certain regions, like Eastern Europe, have adopted the *CME* benchmark, which can be explained by the influence of the European institutional model on the content of transition countries' reforms.

At sector level, too, numerous examples of transplantation of Western practices via market or public administration reforms should be mentioned (Andrews 2013). The functionalist approach to institutional reform, which has always been prevalent among international financial institutions and aid agencies, considers that one given function should be assumed by only one type of best-fitted institutional form, whatever the national context. This approach considers that bringing developing countries' systems in conformity with the institutional frontier mix of institutions is the first best policy (Rodrik 2008). According to this *de jure* approach to institutional fitness of shape, the minimum level of enforcement of this best-fitted institution should automatically engender a highest expected economic outcome than a higher level of enforcement of any alternative institution. This does not leave much room for institutional experimentation of possible *de facto* complementarities.

Surprisingly, however, very few developing countries have effectively introduced fully-fledged market-based institutional systems. We were able to identify various alternative forms of functional effectiveness generated by *de facto* complementary and hybrid sets of institutions, with some of them being highly singular. Many developing countries have, for instance, retained high levels of state intervention, along with progressive and asymmetric market liberalization. Fine-grained case studies would even suggest that most of the systems observed at country-level could, in fact, be typified as being hybrid, and not mere transplantations of Western-style institutional benchmarks. Since a great deal of innovation and experimentation has been observed in post-independence institutional reforms, the dominant benchmark logic thus seems to be contradicted by the historical facts. This apparent contradiction needs to be further elucidated.[5]

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[5] The economic successes generated by some of these heterodox institutional configurations had already been pointed out by several heterodox voices (Berkowitz et al. 2003; Rodrik 2008; Chang 2011) in sharp contradiction with the standard view according to which economic development requires one best way Western-style set of institutions to be transplanted by developing countries.

One first functional explanation, clearly highlighted by the comparative description of national path of reforms in Chap. 13, is that reforms can be deliberately driven by the search for adaptive efficiency of the institutional system. Top-down technocratic-like reforms, which consist of transplanting allegedly optimal models of institutions, on the grounds that they are supported by economic theory or appear to have been successful in other countries, often fail to improve the institutional system's overall institutional functioning. Institutional hybridization is a natural response to the high uncertainty about the capacity of such imported institutions as formal contract law or capital account liberalization to fit in with the local context. Hybrid institutions, therefore, manage to increase both the social acceptability of and political support for the new rules. This is what our comparative case studies perfectly illustrate: the shape of an institutional system cannot be understood independently of its underlying historical and political foundations.

The second explanation may be related to the weakness of the commitment to reform by developing countries' governments. According to Andrews (2013), many developing countries' governments feel obliged to adopt international standards of institutional reforms, simply because they would not otherwise be given financial help. Incumbent governments struggle for external political and financial support, using their institutional reforms to signal their political ability and willingness to adopt that objective. In such cases, best-practice institutional reforms, like privatization, fiscal rules or meritocratic and performance-based administration may be introduced essentially for signaling reasons, thereby tending to be only superficially or partially implemented, with possible deterrent medium-term functional consequences for the whole institutional system.[6]

In the case of Ghana and Brazil, domestic political leadership has also impacted both the willingness to reform in depth, and the autonomy to do so in conformity with the national conditions. The influence of political leadership on economic performance and institutional design has become an emerging issue for development economists (Jones and

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[6] Andrews (2013) reports that 70% of his sample of developing countries recorded lower Quality of Governance indicator scores after the reforms than before they were implemented.

Olken 2005). Under strong leadership, not only are reforms more deeply and time-consistently implemented, but their shape is also more fitted to the specificities of the national context, thereby driving durably positive functional effects (Andrews 2013). Our comparative case studies have contrasted Ghana and Côte d'Ivoire in this respect, with the former having demonstrated leadership autonomy resulting in the gradual making of an effective, albeit hybrid, institutional system.

The third explanation is that the experience drawn from the last three decades of institutional reforms in developing countries demonstrates that institutional change faces sizeable information problems. There is a great deal of uncertainty about the economic outcomes to be expected from a given institution, mainly because the action of this specific institution is complementary with that of the rest of the institutional system. Second, the interaction of this new institution with the local political and sociocultural context introduces an additional source of uncertainty. The whole institutional system can become dysfunctional and ineffective when the disjunction between formal rules and the underlying structures of power and practice becomes too great. Even though formal rules are changed, informal institutions, like collective norms of political and economic activities or resource management and cultural dominant traits, continue to influence the day-to-day working of the system (Roland 2004). The effectiveness of formal rules reforms may be thwarted by the survival of such informal institutions, as shown by Andrews (2013). In the case of Argentina, discretionary patron–client relationships between central and province-based governments, and soft budget constraints, have systematically undermined the effectiveness of public finance reforms. Likewise, high degrees of personalization of politics and institutions, and the persistence of a highly partial political culture in Malawi, by limiting the emergence of a modern and formalized public sector have accentuated informality and corruption.

The process by which institutional reforms are carried out is, therefore, as crucial, in terms of economic effects, as the specific shape of the institution to be introduced (Evans 2004; Andrews 2013). Experimentation and learning enable institutions to be adjusted to the prevalent system as well as to the sociocultural context. Since they ease the emergence of political consensus and support for the new institutions, such mechanisms as

political deliberation have equally been advanced as essential ingredients of a successful institution building process (Roland 2004; Evans 2004). The country-case studies in Rodrik (2003) have also pointed to the critical roles of both the fit of institutions to local conditions and the organization of political support by political leaders, in ensuring the successful economic trajectories of China, Botswana and Mauritius. Institutional reforms, therefore, imply adjustments to local conditions that can significantly transform the shape or enforcement mode of the institution. This can explain why so many developing countries' systems exhibit idiosyncratic modes of sector governance.

Institutional change is increasingly described as a *bricolage*, with solutions emerging from available resources and extant rules, that are simply incrementally reorganized, and not by application of fully-fledged transplanted best-practice solutions (Campbell 2004; Andrews 2013). Institution building, therefore, corresponds to an evolutionary process of trial and error, based on incremental innovation and adjustment of the existing system, with such a system finally imposing high path-dependent inertia on the institutional configuration (Acemoglu and Robinson 2012), and with certain institutional dimensions moving faster than others (Roland 2004). Institutional reform in developing economies needs, therefore, to be informed by a clearer understanding of how the various institutional dimensions actually combine together in a more or less complementary fashion. This book represents a contribution to this goal.

Our framework and results have, in addition, two key implications for policy issues and institutional reforms. First, reasoning in terms of systems of institutions and of institutional complementarities helps our understanding of why some reforms (like importing a common law system, or deregulating labour or capital markets) do not necessarily raise system effectiveness, and can even, if the other institutions do not fit, cause serious inefficiency.

Second, there is no one single best way to escape from the low *Informal* (*Weak State*) model but, instead, a variety of institutional trajectories. Although all poor countries tend to have adopted institutional configurations that look similarly and consistently informal, the sheer variety of middle-income and emerging countries' institutional systems suggests

that there are different ways of escaping from the informal institutional trap and acceding to prosperity. What chiefly opposes our institutional clusters is that, whereas certain countries have adopted more or less statist or globalization-friendly systems showing internally consistent isomorphic sectoral governance mechanisms, others have experimented original, sometimes unintended, institutional configurations.

It is therefore suggested that, for countries trapped into the *Informal* (*Weak State*) institutional configuration, the path to institutional formalization goes through a transitional phase that may follow one of three different trajectories. One trajectory is based on the empowerment of the state as a central actor of economic and social life. As shown in Chaps. 12 and 13, that trajectory is generally historically or physically conditioned, that is, state antiquity and/or the availability of natural resources have contributed to the maintenance and strengthening of path-dependent, often authoritative, national varieties of the developmental state. Another trajectory may involve adapting the institutional system to globalized economy requisites. A third trajectory would consist in proceeding to national institutional innovation and experimentation. This could take one of two different forms: (1) hybridization, merging well-identified area-related institutional models in a highly original way; or (2) innovation, essentially mixing idiosyncratic area-related models.

Throughout the book, strong emphasis has been placed on emerging countries, because they exhibit differentiated, often innovative, ways of organizing their economic systems, with positive development outcomes. By clustering institutions of socioeconomic governance, our empirical analysis has been able to reveal the variety of developing countries' institutional systems, thereby demonstrating that, for the less developed and formalized economies, different strategies of institutional reforms can escape informal dysfunctional systems. Thus, there is not one unique way of "being happy", that is, building institutional systems that enable sustained economic development. According to Besley and Persson (2011), all successful countries look the same, namely, they cluster all the good institutions and outcomes by simultaneously building up state legal and fiscal capacities whilst avoiding internal violence, whereas the countries that fail to develop also fail, each in its own specific way, to simultaneously address those three keys of success. We complement this by show-

ing that for those conditions to be met, there is a variety of institutional options, some of which being extremely innovative.

14.6 Paths for Future Research

The present book has raised both analytical and policy issues. The main analytical issue concerns the empirical approach most adapted to addressing the *sui generis* constructive complexity of institutional systems. We have argued in this book that, although this issue has been diversely addressed by various strands of literature, developing countries' institutional systems have seldom been systematically scrutinized and compared. When institutional systems are analyzed as clusters of sectoral institutions, the standard opposition between state and market does not fully describe the real content of institutional reforms in developing and emerging capitalisms. One crucial explanation of institutional diversity within developing countries may well, in fact, be the degree of institutional experimentation. Experimental institutional systems, based on hybrid or unusual sets of institutional governance models, can certainly be opposed to the more standard institutional systems that are more conventionally accepted as internally consistent configurations.

The main policy issue, therefore, concerns the process of institution building and that of institutional reform in developing countries. Our results shed light on the puzzling issue of ineffective institutional reforms in developing countries. We argue that hybridization is a common practice for the institutional systems that are embarked on a trajectory of highly frequent incremental reform: by simply combining pre-existing elements with new ones, the job can be done, given the resources at hand. The U-shaped distribution of countries over the two institutional formalization and experimentation axes certainly needs further research to be understood more fully, but it clearly shows that the way towards institutional sophistication and economic development may go through a phase of institutional innovation, one in which each country experiments its own institutional arrangements. The intermediate position of emerging economies suggests that accounting for institutional diversity and experimentation is crucial in order to identify what does and does

not enable a poor country to escape underdevelopment traps and accede to sustained economic progress.

What could be the next steps or additions to the present work? First, different strands of the new-institutionalism, like CC and NIE, should be increasingly integrated. Our work represents a first and modest attempt aimed at doing that. But there are undoubtedly other possible fruitful paths to be followed with that aim in mind. Second, our understanding of developing countries' economic systems should be improved, notably by examining more closely the connection between the institutional structure, and its different components, with economic performance or vulnerability. Performance and vulnerability can be gauged at both micro- and macro-levels. Hybrid systems provide the different parts or sectors of the economy with sometimes contradictory microeconomic incentives. This may induce inefficiencies that are worth being identified and corrected by well-informed policy reforms. Equally, economic growth may be affected by the contradictory effects of the finance and labour market regulations on private investment.

Third, our final analysis has led to interesting and new results with respect to the main concern of assessing the institutional architecture, as well as the forms of internal consistency or inconsistency, to be observed among developing countries. Our focus has been more specifically put on these so-called emerging capitalist systems, which, although based on significant but highly original forms of state interventionism, seem to successfully deliver sustained growth and international competitiveness. This variety of original blends of statism and globalization-compatibility has not, so far, been sufficiently analysed in the existing literature. Yet, such a variety of institutional models challenges two very conventional and prevalent views: (1) the "monocropping" view, according to which the best-fitted institutional forms (*LME*s and *CME*s in our analysis) necessarily come from advanced mature capitalism, and (2) the view that globalization necessarily leads to convergence towards the liberal model of capitalism, with highly flexible markets and low collective social protection.

Technical change and globalization seem, in fact, to have increased economic complementarity between the two models of mature capitalisms (Acemoglu et al. 2012), with the high income levels of *CME* coun-

tries offering markets for the radical innovations of *LME*s. This book contributes to broadening this framework by revealing a larger set of differences and potential economic complementarities between capitalist models, notably in what concerns emerging capitalist economies, whose static and dynamic properties require to more systematic study.

References

Acemoglu, D., and J.A. Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. London: Profile books.

Acemoglu, D., J. A. Robinson and T. Verdier. 2012. Can't We All Be More Like Scandinavians? Asymmetric Growth and Institutions in an Interdependent World. *NBER Working Papers*, 18441, National Bureau of Economic Research.

Ahrens, J., and P. Jünemann. 2011. Adaptive Efficiency and Pragmatic Flexibility: Characteristics of Institutional Change in Capitalism, Chinese-style. In *Institutional Variety in East Asia: Formal and Informal Patterns of Coordination*, New Horizons in Institutional and Evolutionary Economics Series, ed. W. Pascha, C. Storz, and M. Taube. Cheltenham: Edward Elgar.

Andrews, M. 2013. *The Limits of Institutional Reform in Development: Changing Rules for Realistic Solutions*. Cambridge, MA: Cambridge University Press.

Bardhan, P. 2010. *Awakening Giants, Feet of Clay: Assessing the Economic Rise of China and India*. Princeton, NJ: Princeton University Press.

Berkowitz, D., K. Pistor, and J.-F. Richard. 2003. Economic Development, Legality, and the Transplant Effect. *European Economic Review* 47 (1): 165–195.

Besley, T., and T. Persson. 2011. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton, NJ: Princeton University Press.

Campbell, J.L. 2004. *Institutional Change and Globalization*. Princeton, NJ: Princeton University Press.

Chang, H.J. 2011. Institutions and Economic Development: Theory, Policy and History. *Journal of Institutional Economics* 7 (4): 473–498.

Evans, P. 1997. The Eclipse of the State? Reflections on Stateness in an Era of Globalization. *World Politics* 50 (1): 62–87.

———. 2004. Development as Institutional Change: The Pitfalls of Monocropping and the Potentials of Deliberation. *Studies in Comparative International Development* 38 (4): 30–52.

Gollwitzer F.S., and M. Quintyn. 2012. Institutional Transformations, Polity and Economic Outcomes: Testing the North-Wallis-Weingast Doorsteps Framework. *IMF Working Papers WP 12/87*. Washington, DC: The International Monetary Fund.

Hall, P.A., and D. Soskice. 2001. An Introduction to Varieties of Capitalism. In *Varieties of Capitalism: The Institutional of Foundations of Comparative Advantage*, ed. P.A. Hall and D. Soskice. Oxford: Oxford University Press.

Jackson, G., and R. Deeg. 2006. How Many Varieties of Capitalism? Comparing the Comparative Institutional Analyses of Capitalist Diversity. *MPIfG Discussion Paper* No. 06/2.

Jones, B.F., and B.A. Olken. 2005. Do Leaders Matter? National Leadership and Growth Since World War II. *The Quarterly Journal of Economics* 120 (3): 835–864.

Lau, L.J., Y. Qian, and G. Roland. 1997. Pareto-Improving Economic Reforms through Dual-track Liberalization. *Economics Letters* 55 (2): 285–292.

North, D.C., J.J. Wallis, and B.R. Weingast. 2009. *Violence and Social Orders Cambridge: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge, UK: Cambridge University Press.

Qian, Y. 1999. The Institutional Foundations of China's Market Transition. Mimeo.

———. 2003. How Reform Worked in China. In *In Search of Prosperity, Analytic Narratives on Economic Growth*, ed. D. Rodrik. Princeton, NJ: Princeton University Press.

Qian, Y., and B.R. Weingast. 1996. China's Transition to Markets: Market-Preserving Federalism, Chinese Style. *Journal of Policy Reform* 1 (2): 149–185.

Qian, Y., and C. Xu. 1993. M-Form Hierarchy and China's Economic Reform. *European Economic Review, Papers and Proceedings* 37 (2–3): 541–548.

Rodrik, D. 2003. *In Search of Prosperity, Analytic Narratives on Economic Growth*. Princeton, NJ: Princeton University Press.

———. 2008. Goodbye Washington Consensus, Hello Washington Confusion? *Journal of Economic Literature* XLIV: 969–983.

Roland, G. 2004. Understanding Institutional Change: Fast-Moving and Slow-Moving Institutions. *Studies in Comparative International Development* 38 (4): 109–131.

Rougier, E. 2016. "Fire in Cairo": Authoritarian–Redistributive Social Contracts, Structural Change, and the Arab Spring. *World Development* 78 (1): 148–171.

General Appendix

The 140 Countries' Institutional Configurations

Country	Agriculture	Competition	Education	Environment	Finance	Labour	Social protection
Albania	Dualistic	Idiosyncratic	Upgrading export-oriented	Weakly governed	–	Idiosyncratic	Informal remittance-based
Algeria	Traditional	Statist protective	Idiosyncratic	Idiosyncratic	Embryonic	Paternalistic	Idiosyncratic
Angola	Traditional	Statist partially liberalized	Neglected	Weakly governed	Embryonic	Informal	–
Argentina	Modern formalized	Export-oriented	Universal	Effectively governed	Intermediated repressed	Coordinated	Liberal
Armenia	Idiosyncratic	Statist partially liberalized	Upgrading export-oriented	Weakly governed	Embryonic market	Liberal	Informal remittance-based
Australia	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Liberal	Liberal
Austria	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Azerbaijan	Dualistic	Statist partially liberalized	Upgrading export-oriented	Weakly governed	Embryonic market	Liberal	Liberal
Bangladesh	Dualistic	Statist partially liberalized	Neglected	Biodiversity-focused	Intermediated repressed	Informal	Social insecurity
Belgium	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Benin	Dualistic	Statist protective	Neglected	Biodiversity-focused	Embryonic market	Informal	Idiosyncratic

Bolivia	Dualistic	Statist partially liberalized	Idiosyncratic	Biodiversity-focused	Intermediated repressed	Informal	Idiosyncratic
Botswana	Traditional	Idiosyncratic	Upgrading export-oriented	Weakly governed	Embryonic market	Liberal	Idiosyncratic
Brazil	Idiosyncratic	Statist partially liberalized	Upgrading export-oriented	Biodiversity-focused	Embryonic market	Coordinated	Liberal
Bulgaria	Modern formalized	Statist partially liberalized	Universal	Biodiversity-focused	Intermediated repressed	Coordinated	Decommodified
Burkina Faso	Dualistic	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Idiosyncratic
Burundi	Idiosyncratic	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Social insecurity
Cambodia	Traditional	Idiosyncratic	Neglected	Weakly governed	–	Informal	Idiosyncratic
Cameroon	Dualistic	Statist protective	Neglected	Biodiversity-focused	Embryonic market	Informal	Social insecurity
Canada	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Liberal	Idiosyncratic
Central African Republic	Dualistic	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Social insecurity
Chad	–	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Social insecurity

(continued)

The 140 Countries' Institutional Configurations (continued)

Country	Agriculture	Competition	Education	Environment	Finance	Labour	Social protection
Chile	Modern formalized	Liberalized deregulated	Upgrading export-oriented	Biodiversity-focused	Intermediated repressed	Liberal	Liberal
China	Traditional	Statist protective	Idiosyncratic	Idiosyncratic	Intermediated repressed	Informal	Liberal
Colombia	Dualistic	Export-oriented	Upgrading export-oriented	Biodiversity-focused	Intermediated repressed	Idiosyncratic	Decommodified
Congo	Traditional	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Social insecurity
Congo (Democratic)	Dualistic	Statist protective	–	–	Embryonic market	Informal	Social insecurity
Costa Rica	Traditional	Idiosyncratic	Idiosyncratic	Biodiversity-focused	Intermediated repressed	Idiosyncratic	Idiosyncratic
Côte d'Ivoire	Idiosyncratic	Idiosyncratic	Neglected	Biodiversity-focused	Embryonic market	Idiosyncratic	Social insecurity
Croatia	Traditional	Export-oriented	Universal	Weakly governed	Idiosyncratic	Coordinated	Decommodified
Czech Republic	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Denmark	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Liberal	Decommodified
Dominican Republic	Modern formalized	Export-oriented	Upgrading export-oriented	Biodiversity-focused	Intermediated repressed	Idiosyncratic	Social insecurity
Ecuador	Traditional	Statist partially liberalized	Universal	Biodiversity-focused	Intermediated repressed	Paternalistic	Idiosyncratic

Egypt	Traditional	Statist protective	Idiosyncratic	Biodiversity-focused	Intermediated repressed	Paternalistic	Idiosyncratic
El Salvador	Traditional	Idiosyncratic	Idiosyncratic	Biodiversity-focused	Intermediated repressed	Paternalistic	Informal remittance-based
Estonia	Idiosyncratic	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Ethiopia	Dualistic	Statist protective	Neglected	Biodiversity-focused	Embryonic market	Informal	Social insecurity
Finland	Traditional	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
France	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Gabon	Dualistic	Statist protective	Neglected	Weakly governed	Idiosyncratic	Informal	Idiosyncratic
Gambia	Idiosyncratic	–	Neglected	–	Embryonic market	Informal	Informal remittance-based
Georgia	Idiosyncratic	–	Universal	Weakly governed	Intermediated repressed	Informal	Social insecurity
Germany	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Coordinated	Decommodified
Ghana	Dualistic	Export-oriented	Upgrading export-oriented	Idiosyncratic	Intermediated repressed	Informal	Social insecurity
Greece	Modern formalized	Liberalized deregulated	Universal	Biodiversity-focused	Intermediated repressed	Coordinated	Decommodified
Guatemala	Dualistic	Export-oriented	Neglected	Biodiversity-focused	Intermediated repressed	Paternalistic	Social insecurity

The 140 Countries' Institutional Configurations (continued)

Country	Agriculture	Competition	Education	Environment	Finance	Labour	Social protection
Guinea-Bissau	Dualistic	–	Neglected	Weakly governed	Intermediated repressed	Informal	Social insecurity
Guinea	Dualistic	–	Neglected	Weakly governed	–	Informal	Social insecurity
Haiti	Traditional	Statist partially liberalized	–	Weakly governed	Embryonic market	Informal	Informal remittance-based
Honduras	Traditional	Idiosyncratic	Neglected	Biodiversity-focused	Idiosyncratic	Idiosyncratic	Informal remittance-based
Hong Kong	Traditional	Liberalized deregulated	Upgrading export-oriented	–	Mature market	Liberal	Liberal
Hungary	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Iceland		Liberalized deregulated	Universal	Biodiversity-focused	Mature market	Liberal	Decommodified
India	Dualistic	Statist protective	Neglected	Biodiversity-focused	Intermediated repressed	Paternalistic	Liberal
Indonesia	Traditional	Statist partially liberalized	Idiosyncratic	Idiosyncratic	Idiosyncratic	Informal	Social insecurity
Iran	Traditional	Statist protective	Upgrading export-oriented	Idiosyncratic	Intermediated repressed	Paternalistic	Idiosyncratic
Ireland	–	Liberalized deregulated	Universal	Biodiversity-focused	Mature market	Liberal	Decommodified

Israel	Modern formalized	Liberalized deregulated	Universal	Weakly governed	Mature market	Liberal	Idiosyncratic
Italy	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Jamaica	Modern formalized	Statist partially liberalized	Upgrading export-oriented	Idiosyncratic	Intermediated repressed	Liberal	Informal remittance-based
Japan	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Liberal	Decommodified
Jordan	Modern formalized	Export-oriented	Upgrading export-oriented	Idiosyncratic	Mature market	Paternalistic	Informal remittance-based
Kazakhstan	Dualistic	Statist partially liberalized	Idiosyncratic	Weakly governed	Intermediated repressed	Liberal	Liberal
Kenya	Dualistic	Idiosyncratic	Neglected	Biodiversity-focused	Embryonic market	Informal	Social insecurity
Korea (rep.)	Idiosyncratic	Export-oriented	Universal	Effectively governed	Mature market	Liberal	Social insecurity
Kuwait	Modern formalized	–	Upgrading export-oriented	Weakly governed	Intermediated repressed	Liberal	
Kyrgyzstan	Dualistic	–	Upgrading export-oriented	Weakly governed	Embryonic market	Idiosyncratic	Informal remittance-based
Laos	Dualistic	Statist partially liberalized	Neglected	Weakly governed		Informal	Social insecurity

(continued)

The 140 Countries' Institutional Configurations (continued)

Country	Agriculture	Competition	Education	Environment	Finance	Labour	Social protection
Latvia	Traditional	Export-oriented	Universal	Weakly governed	Intermediated repressed	Idiosyncratic	Liberal
Lebanon	Modern formalized	Idiosyncratic	Upgrading export-oriented	Weakly governed	Mature market	–	Informal remittance-based
Lesotho	Traditional	–	Upgrading export-oriented		Embryonic market	Informal	Informal remittance-based
Lithuania	Modern formalized	Liberalized deregulated	Universal	Weakly governed	Intermediated repressed	Coordinated	Decommodified
Luxembourg	Modern formalized	–	Universal	–	Mature market	Coordinated	Decommodified
Madagascar	Dualistic	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Social insecurity
Malawi	Dualistic	Statist partially liberalized	Neglected	Weakly governed	Embryonic market	Informal	Decommodified
Malaysia	Modern formalized	Export-oriented	Upgrading export-oriented	Biodiversity-focused	Mature market	Liberal	Social insecurity
Mali	Dualistic	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Idiosyncratic
Mauritania	Traditional	Statist partially liberalized	Neglected	Weakly governed	Embryonic market	Idiosyncratic	Social insecurity
Mauritius	Traditional	Export-oriented	Upgrading export-oriented	–	Intermediated repressed	Liberal	Liberal

Mexico	Modern formalized	Idiosyncratic	Upgrading export-oriented	Biodiversity-focused	Intermediated repressed	Paternalistic	Liberal
Moldova	Idiosyncratic	Idiosyncratic	Idiosyncratic	Weakly governed	Embryonic market	Coordinated	Informal remittance-based
Mongolia	Dualistic	Statist partially liberalized	Idiosyncratic	Weakly governed	Embryonic market	Informal	Idiosyncratic
Morocco	Dualistic	Statist protective	Upgrading export-oriented	Biodiversity-focused	Embryonic market	Paternalistic	Social insecurity
Mozambique	Dualistic	Idiosyncratic	Neglected	Weakly governed	Embryonic market	Informal	Idiosyncratic
Namibia	Traditional	Export-oriented	Upgrading export-oriented	Weakly governed	Intermediated repressed	Liberal	Liberal
Nepal	Traditional	Statist partially liberalized	Neglected	Weakly governed	Intermediated repressed	Informal	Informal remittance-based
Netherlands	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Coordinated	Decommodified
New Zealand	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Liberal	Liberal
Nicaragua	Idiosyncratic	Export-oriented	Idiosyncratic	Biodiversity-focused	Idiosyncratic	Paternalistic	Informal remittance-based
Niger	Dualistic	Statist partially liberalized	Neglected	Weakly governed	Embryonic market	Informal	Idiosyncratic

(continued)

The 140 Countries' Institutional Configurations (continued)

Country	Agriculture	Competition	Education	Environment	Finance	Labour	Social protection
Nigeria	Dualistic	Statist partially liberalized	–	Biodiversity-focused	Embryonic market	Informal	Social insecurity
Norway	Traditional	Liberalized deregulated	Universal	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Oman	Modern formalized	Export-oriented	Upgrading export-oriented	Biodiversity-focused	Idiosyncratic	Paternalistic	Liberal
Pakistan	Traditional	Statist protective	Neglected	Idiosyncratic	Intermediated repressed	Paternalistic	Social insecurity
Panama	Dualistic	Export-oriented	Universal	Idiosyncratic	Intermediated repressed	Coordinated	Idiosyncratic
Papua New Guinea	Dualistic	Idiosyncratic	Neglected	Weakly governed	Intermediated repressed	Liberal	Social insecurity
Paraguay	Idiosyncratic	Statist partially liberalized	Idiosyncratic	Biodiversity-focused	Idiosyncratic	Informal	Idiosyncratic
Peru	Traditional	Idiosyncratic	Idiosyncratic	Idiosyncratic	Intermediated repressed	Paternalistic	Liberal
Philippines	Idiosyncratic	Export-oriented	Idiosyncratic	Biodiversity-focused	Idiosyncratic	Liberal	Informal remittance-based
Poland	Idiosyncratic	Export-oriented	Universal	Biodiversity-focused	Idiosyncratic	Coordinated	Decommodified
Portugal	Modern formalized	Liberalized deregulated	Idiosyncratic	Effectively governed	Intermediated repressed	Coordinated	Decommodified
Romania	Dualistic	Export-oriented	Universal	Idiosyncratic	Idiosyncratic	Coordinated	Decommodified

Russian Federation	Idiosyncratic	Statist protective	Universal	Biodiversity-focused	Intermediated repressed	Coordinated	Liberal
Rwanda	Dualistic	Idiosyncratic	Neglected	Weakly governed	Embryonic market	Informal	Social insecurity
Saudi Arabia	Idiosyncratic	Idiosyncratic	Upgrading export-oriented	Weakly governed	Intermediated repressed	Paternalistic	Social insecurity
Senegal	Dualistic	Statist partially liberalized	Neglected	Idiosyncratic	Embryonic market	Informal	Social insecurity
Serbia	Idiosyncratic	Export-oriented	–		Idiosyncratic	Idiosyncratic	Informal remittance-based
Sierra Leone	Idiosyncratic	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Social insecurity
Singapore	–	Liberalized deregulated	Upgrading export-oriented	–	Mature market	Liberal	Social insecurity
Slovakia	Modern formalized	Liberalized deregulated	Universal	Biodiversity-focused	Intermediated repressed	Coordinated	Decommodified
Slovenia	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Idiosyncratic	Coordinated	Decommodified
South Africa	Idiosyncratic	Export-oriented	Idiosyncratic	Idiosyncratic	Mature market	Liberal	Social insecurity
Spain	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Coordinated	Decommodified
Sri Lanka	Traditional	Export-oriented	Idiosyncratic	Biodiversity-focused	Idiosyncratic	Paternalistic	Social insecurity

(continued)

The 140 Countries' Institutional Configurations (continued)

Country	Agriculture	Competition	Education	Environment	Finance	Labour	Social protection
Sudan	Traditional	Statist partially liberalized	Neglected	Biodiversity-focused	–	–	Social insecurity
Swaziland	Idiosyncratic	–	Neglected	–	Intermediated repressed	Idiosyncratic	Idiosyncratic
Sweden	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Coordinated	Decommodified
Switzerland	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Liberal	Liberal
Syrian Arab Republic	Traditional	Statist protective	Idiosyncratic	Weakly governed	Embryonic market	Paternalistic	Social insecurity
Tajikistan	Dualistic	–	Idiosyncratic	Weakly governed	–	Informal	Informal remittance-based
Tanzania	Traditional	Statist protective	Neglected	Biodiversity-focused	Embryonic market	Informal	Social insecurity
Thailand	Traditional	Export-oriented	Idiosyncratic	Idiosyncratic	Intermediated repressed	Liberal	Social insecurity
The FYR of Macedonia	Idiosyncratic	–	–	Weakly governed	Idiosyncratic	Coordinated	Liberal
Togo	Traditional	Statist protective	Neglected	Weakly governed	Embryonic market	Informal	Idiosyncratic
Trinidad and Tobago	Modern formalized	–	Upgrading export-oriented	Idiosyncratic	Intermediated repressed	Liberal	Liberal
Tunisia	Idiosyncratic	Export-oriented	Upgrading export-oriented	Biodiversity-focused	Intermediated repressed	Paternalistic	Idiosyncratic

Turkey	Idiosyncratic	Export-oriented	Idiosyncratic	Biodiversity-focused	Intermediated repressed	Paternalistic	Social insecurity
Uganda	Dualistic	Statist partially liberalized	Neglected	Biodiversity-focused	Embryonic market	Informal	Social insecurity
Ukraine	Idiosyncratic	Statist partially liberalized	Universal	Idiosyncratic	Intermediated repressed	Coordinated	Decommodified
United Arab Emirates	Modern formalized	Export-oriented	Upgrading export-oriented	Weakly governed	Intermediated repressed	Liberal	Social insecurity
United Kingdom	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Liberal	Decommodified
USA	Modern formalized	Liberalized deregulated	Universal	Effectively governed	Mature market	Liberal	Liberal
Uruguay	Modern formalized	Export-oriented	Universal	Idiosyncratic	Intermediated repressed	Liberal	Liberal
Uzbekistan	Traditional	Statist partially liberalized	Universal	Weakly governed	–	Informal	Liberal
Venezuela	Traditional	Statist partially liberalized	Upgrading export-oriented	Biodiversity-focused	Embryonic market	Paternalistic	Social insecurity
Vietnam	Traditional	Statist partially liberalized	Idiosyncratic	Weakly governed	Intermediated repressed	Informal	Social insecurity
Yemen	Traditional	Idiosyncratic	Upgrading export-oriented	Weakly governed	–	Paternalistic	Idiosyncratic

(continued)

The 140 Countries' Institutional Configurations (continued)

Country	Agriculture	Competition	Education	Environment	Finance	Labour	Social protection
Zambia	Traditional	Statist protective	Neglected	Biodiversity-focused	Embryonic market	Informal	–
Zimbabwe	Traditional	Statist protective	Neglected	Idiosyncratic	Embryonic market	Informal	Social insecurity

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Note: Page number followed by 'n' refers to notes.

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