



REPUBLIC OF TURKEY
ANKARA YILDIRIM BEYAZIT UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES

**UNPACKING THE CONCEPT OF THE “STATE”: A
SYSTEMATIC REVIEW OF INSTITUTIONAL RESEARCH
AND A CROSS-NATIONAL ANALYSIS OF THE EFFECTS
OF STATE AUTONOMY, STATE CAPACITY, AND STATE
GOALS ON STOCK EXCHANGE ADOPTION AND
DEVELOPMENT**

PhD DISSERTATION

Meltem Özge ÖZCANLI BOZKURT

MANAGEMENT AND ORGANIZATION PhD PROGRAM

Ankara, 2022

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SUPERVISOR
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APPROVAL

Thesis titled as “Unpacking the Concept of the “State”: A Systematic Review of Institutional Research and A Cross-national Analysis of the Effects of State Autonomy, State Capacity, and State Goals on Stock Exchange Adoption and Development” and prepared by Meltem Özge ÖZCANLI BOZKURT was accepted by the following committee members unanimously/by majority as a thesis for the degree of Doctor of Philosophy in Ankara Yıldırım Beyazıt University, Institute of Social Sciences, Department of Management and Organization.

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DECLARATION

I hereby declare that this thesis is my own work, that I did not have any unethical behavior that violates patent rights or copyrights throughout all stages of the thesis from the planning to the writing, that I obtained all the information in this thesis according to academic rules and ethical codes, and that I included citations and references to source material for all the information and interpretations presented in this thesis.

01.07.2022

Meltem Özge ÖZCANLI BOZKURT



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ÖZET

“Devlet” Kavramını Çözölemek: Kurumsal Araştırmaların Sistematik bir İncelemesi ve Devlet Otonomisi, Devlet Kapasitesi ve Devlet Amaçlarının Borsaların Kurulması ve Gelişmişliği Üzerindeki Etkilerinin Uluslararası bir Analizi

Kurumsal kuram, devletin etkilerine verdiği önemle dikkat çekmiş olmakla birlikte, aynı zamanda da bu kavrama dair sınırlı bir anlayış sürdürmüş olmaktan dolayı eleştirilmiş bir kuramdır. Bu alandaki çalışmalar bütünüünün güçlü ve zayıf yönlerini derlemek ve kavramın karmaşıklığını yansıtmayı çabalayan çalışmalar için temel oluşturmak amacıyla, devletle ilgili kurumsal araştırmaların otonomi, kapasite ve amaçlar temalarına odaklanarak sistematik bir taraması gerçekleştirilmiştir. Bu inceleme, devletin boyutlarının belirleyicileri ve sonuçları çerçevesinde şekillenmiş kavramsal bir çerçeve sunmanın yanı sıra, daha fazla akademik ilgi gösterilmesi gereken noktaları vurgulamıştır. Söz konusu meselelerin, kavramsal netlik, çok boyutluluk, kuramsal mekanizmalar ve kapsam koşulları olduğu belirtilmiştir. Yazın taramasının bulguları devlet kavramını çalışmak için bir rehber olarak kullanılarak, devletin üç boyutunun borsaların kurulması ve gelişmişliği üzerindeki etkilerinin görgül bir araştırması aracılığıyla kurumsal kuramda yaygın olan kavramsal ve yöntemsel problemlerin üstesinden gelmek için çözümler geliştirilmiştir. Bu çalışmanın, genel olarak kurumsal yazına ve özellikle de yayılım yazınına önemli bir katkısı, otonomi, kapasite ve amaçlar kavramlarını dikkate almanın devletin politika değışikliklerine yol açmada oynadığı rolleri daha iyi anlamak için gerekliliğini tespit etmiş olmasıdır. Uluslararası ve boylamsal analizlerin sonuçları, devletin temel özelliklerinin yalnızca bağımsız etkilerinin değil, ayrıca bu özelliklerin ilişkilerinin ve etkileşimlerinin de katma, aracılık ve biçimleyicilik etkileri aracılığıyla borsaların ne kadar erken ortaya çıktığı ve ne kadar iyi performans gösterdiğini açıklayabildiğini göstermiştir.

Anahtar Kelimeler: borsalar, devlet amaçları, devlet kapasitesi, devlet otonomisi, kurumsal kuram

ABSTRACT

Unpacking the Concept of the “State”: A Systematic Review of Institutional Research and A Cross-national Analysis of the Effects of State Autonomy, State Capacity, and State Goals on Stock Exchange Adoption and Development

Institutional theory is noted for the importance it has placed on the effects of the state, but at the same time it is a theory that has received criticism for retaining a limited grasp of the concept. To synthesize the relative strengths and weaknesses of a large body of work in this area and lay the basis for conscious efforts to reflect its complexities, I conduct a systematic review of institutional research on the concept of the state, focusing on the themes of autonomy, capacity, and goals. This review provides us with a conceptual framework structured around the determinants and consequences of aspects of the state and highlights the key points meriting more scholarly attention. The issues at stake are stated to be conceptual precision, multidimensionality, theoretical mechanisms, and boundary conditions. Relying upon the findings from the review of the literature as a guide to the study of the state, I come up with ways of dealing with particular conceptual and methodological problems plaguing institutional theory while researching empirically the effects of the three dimensions of the state on stock exchange adoption and development. A significant contribution of this work to the institutional literature in general and the diffusion literature in particular is to establish that the concepts of autonomy, capacity, and goals are central to better understanding the roles that the state plays in bringing about policy changes. The results of the cross-national and longitudinal analyses indicate that not only do independent effects of the state’s main features help explain how soon stock markets come into existence and how well they perform but also their interrelationships and interactions through additive, moderating, and mediational effects.

Keywords: institutional theory, state autonomy, state capacity, state goals, stock exchanges

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LIST OF ABBREVIATIONS

AMJ	: Academy of Management Journal
AMR	: Academy of Management Review
ASQ	: Administrative Science Quarterly
BJM	: British Journal of Management
CIA	: Central Intelligence Agency
CSR	: Corporate Social Responsibility
FDI	: Foreign Direct Investment
FE	: Fixed-effects
GDP	: Gross Domestic Product
GONGO	: Government-organized Nongovernmental Organization
IMF	: International Monetary Fund
INGO	: International Nongovernmental Organization
JMS	: Journal of Management Studies
JOM	: Journal of Management
MNE	: Multinational Enterprise
ORG	: Organization
OSC	: Organization Science
OST	: Organization Studies
RE	: Random-effects
RHA	: Regional Health Authority
SEM	: The Stock Exchange of Mauritius Ltd
SOE	: State-owned Enterprise
UK	: United Kingdom
US	: United States
WDI	: World Development Indicators

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1. INTRODUCTION

The new organizational institutionalism (hereafter referred to as institutional theory) focuses primarily on processes by which organizations conform to institutionalized rules and become more homogenized. Most influentially, Meyer and Rowan (1977) and DiMaggio and Powell (1983) correlate the influence of environmental pressures with institutional isomorphism. In this regard, the theory supposes that powerful forces in organizational fields put pressure on organizations to react in similar ways and incorporate rationalized structures and procedures if they want to be legitimized. Compliance with the legal requirements is recognized as one way of securing legitimacy, which serves to emphasize the role of the state in providing a blueprint for organizations to follow (Scott, 2014, p. 71-74). In fact, the evidence strongly suggests that when the law mandates changes in the way organizations are structured, most organizations resort to the adoption of new procedures to acquire legitimization, regardless of its consequences on the efficiency of their operations (Tolbert and Zucker, 1983). Using groundwork collectively laid by the institutional theorists mentioned above, a significant amount of research in the field has therefore concentrated on the effects of coercive pressures (through the state's regulatory powers) on isomorphic change (e.g., Luoma and Goodstein, 1999; Mezas, 1990; Russo, 2001; Slack and Hinings, 1994).

The world society approach applies the insights offered by institutional theory at the global level of analysis. According to this view, the institutionalization of elements of modern ideology promotes the diffusion of policies on a worldwide scale and results in nation-states having isomorphic structures (Meyer, Boli, Thomas, and Ramirez, 1997). The rapidity of policy diffusion depends on the cultural construction and theorization of nation-states dealing primarily with their commonalities (Strang and Meyer, 1993), and the scientific community (Schott, 1993) and international nongovernmental organizations (INGOs) (Boli and Thomas, 1997) play a big part in propagating cultural values. Empirically, ties to world society, created by scientization or membership in INGOs, have been shown to influence national policies governing environmental protection (Frank, Hironaka, and Schofer, 2000), new ministries (Jang, 2000), rationalized governance (Drori, Jang, and Meyer, 2006), and sexual activity (Frank, Camp, and Boutcher, 2010). From the perspective of such an extensive body of research, conformity to international standards is

demanded of nation-states in exchange for legitimacy, even to the extent of having a detrimental effect on economic efficiency as imported practices may not be appropriate for all local conditions (Kim, Jang, and Hwang, 2002; Shenhav and Kamens, 1991). Yet, in many ways, nation-states are considered to be willing to allow international actors to drive the process of policy formation, even if this results in the decoupling of official policy from actual practice (Meyer et al., 1997). So, in the above-mentioned four examples from the literature and other studies (e.g., Cole, 2015; Hafner-Burton and Tsutsui, 2005), a few carefully chosen variables, such as population size and economic development, have performed an instrumental role in illustrating the relative unimportance of domestic factors in policy decisions. However, some have pointed up the importance of incorporating other national characteristics, along with international factors, in accounting for countries' adoption rates. This line of research has demonstrated that national governments are more likely to respond to global pressures if the salient features of their countries make adherence to a universal set of principles easier (e.g., Koo and Ramirez, 2009; Paxton, Hughes, and Green, 2006).

Studies in the world society literature constitute part of the larger diffusion literature describing how the interdependency of national policies stems from the power of various mechanisms, which include, but is not limited to, modern ideology, to bring about a change of policy in one country along the same lines as policies in other countries (Dobbin, Simmons, and Garrett, 2007). While mechanisms for such diffusion of new models are based on a number of different theories, it is noticeable that coercion, emulation, learning, and competition (Braun and Gilardi, 2006; Simmons et al., 2006) closely mirror the processes of isomorphism in institutional theory (DiMaggio and Powell, 1983). Despite being mainly concerned with identifying which of these mechanisms are responsible for widespread adoption of new programs, scholars of policy diffusion, unlike their counterparts in the world society literature, have argued consistently for taking a combination of internal and external factors into account. Therefore, this point is not only one that is raised by those who have found strong associations between national characteristics, especially with regard to political and economic conditions, and policy development in a range of areas such as public-sector downsizing (Lee and Strang, 2006), corporate and capital taxation (Swank, 2006), and capital account regulation (Quinn and Toyoda, 2007) but also one that is highlighted by those who have shown country-specific factors to be poor predictors of national policies governing economic liberalization (Simmons and Elkins, 2004) and central bank independence (Polillo

and Guillén, 2005). It is indeed a view that is shared even by those who have incorporated a variety of international influences alone (see, for example, Starr, 1991, for acknowledgment of the importance of identifying both internal and external determinants of democracy, in spite of the article's exclusive concentration on the latter).

Overall, a common thread that seems to run through the diffusion literature is that while the dominant powers and peers dictate to many countries what their policies should be, some governments are slow to respond due to local conditions. Internal factors which play a decisive role in determining whether the reforms instituted by a global network of actors are introduced at the national level can be grouped into two categories – those influencing government policy on the matter at hand, and those influencing the process of adoption in general. For instance, taking the former of those two views, Jandhyala (2015) demonstrates that national actors demanding concessions on externally imposed demands because of domestic health concerns counteract the effects of the World Trade Organization membership on intellectual property protection. An alternative approach can be seen in the work of those who consider national characteristics that enhance or undermine the ability of countries to pursue policies in most cases. In this regard, the main focus of interest, as noted above, has been on political and economic conditions. More precisely, studies looking at factors influencing the diffusion of policies ask whether leftist ideology reduces or strong economic performance increases the likelihood of countries' following global trends (e.g., Brooks, 2005; Henisz, Zelner, and Guillén, 2005; Lee and Strang, 2006; Polillo and Guillén; 2005; Simmons and Elkins, 2004; Weber, Davis, and Lounsbury, 2009). If such criteria are (not) present, local conditions, owing to lack of political will or resources, are just not favorable to the introduction of diffusing policies.

While there has been sufficient evidence to support the claim that policy differences between nation-states are accounted for by differences in the circumstances of individual countries, it remains to be seen whether we can expand the range of domestic factors and gain thereby a broader understanding of conditions that ultimately influence policy outcomes. In what follows I propose that we consider the state itself as another contributory factor to different policy paths, which makes good sense from the perspective of institutional theory. Studies of policy diffusion are already recognized as being built on work in this area to examine international factors behind policy changes. The same theoretical framework can be used as a basis for determining domestic factors on which policy outcomes depend. As discussed earlier, institutional theory positions the state as an agent for isomorphic change.

Thus, the state's power to enforce, as well as its commitment to act in, conformity with institutional requirements is seen as a vehicle for diffusing models nationally and internationally. A fundamental issue that has gone largely unaddressed, however, is that of whether there are differences between countries in the extent to which the state remains a potent influence on mass adoption of required standards (Guillén and Capron, 2016). Such a dearth of research on the state as a potential source of policy differences is hardly surprising given criticisms being made of institutional theory on the basis that it has failed to reflect the complex and multifaceted nature of the state (e.g., Abzug and Mezias, 1993; Carroll, Goodstein, and Gyenes, 1988).

Only more recently has research opened the way for a more detailed treatment of the subject as attention has been drawn to certain aspects of the state that help raise our awareness of the key roles that it plays in institutional environments. In particular, scholars have begun to examine the consequences of the state's autonomy and capacity for organizations and countries. It has been demonstrated that the effects of the state on the legitimacy of organizational forms and the dynamics of organizational populations are better understood through attending to state autonomy either singly (Ingram and Simons, 2000) or in combination with state capacity (Simons and Ingram, 2003). Moreover, evidence has come to light that indicates that its autonomy and capacity provide the means by which the state speeds up the adoption of models at the organizational level (Kalev, Shenhav, and De Vries, 2008), and that state capacity plays a key part in the adoption of policies at the international level (Guillén and Capron, 2016). According to these studies, which are intended as illustrative examples, borrowing concepts from political science is a good way of developing the theoretical tools to study the differences between countries in state policies and actions. In this study, I follow their lead and move outside our field to explore aspects of the state that may be responsible for accommodating a divergence from global trends. This approach also allows us to be able to "generate more generalizable findings which may appeal to people who are not necessarily institutional theory insiders" (Alvesson and Spicer, 2019, p. 211).

Accordingly, I carried out some research in the field of political sociology preliminary to the present study and found out that political institutional theory is one of the most useful sources of information I could turn to for a richer conception of the state in organizational institutionalism. This is not merely because these schools of thought are basically concerned with related issues and are thus capable of engaging in direct dialogue with each other (Ring,

Bigley, D'Aunno, and Khanna, 2005) but also because political institutional theorists, unlike the majority of their predecessors, have brought the state to the forefront of scholarly attention and focused on macrostructural aspects of states affecting outcomes by considering those characteristics as they vary across countries and over time (Amenta, 2003). Reorienting the theoretical model toward treating states as actors, the debate has centered around themes of autonomy and capacity in the works of statist, foremost among them Evans, Rueschemeyer and Skocpol's (1985) definitive volume, "Bringing the state back in". In the introductory chapter of the book, Skocpol (1985) defines state autonomy as the state's ability to determine and follow courses of action independently of societal forces, and state capacity as the state's ability to implement decisions and policies. Over the years, as studies exploring these constructs have proliferated in various disciplines and fields, explanations emerged of complex social, political, and economic issues. As previously stated, some institutional theorists have also joined the effort to document the effects of states using the concepts of autonomy and capacity. This research addresses the question of the applicability of these concepts to the study of internal influences on the policies adopted by countries.

Furthermore, I discovered that theories in the fields of public administration and political science offer their own insights into how to allow for a more detailed analysis of the state in institutional theory. To begin with, voluminous literature on the public interest can be taken as a guide as to what the purpose of political processes is. While there is no universally accepted definition of "the public interest" and scholars continue efforts to redescribe the concept (Box, 2007), typologies come in useful for following common threads running through most of the accounts (see, for example, Cochran, 1974; Mitnick, 1976). Rather than look at specific issues facing this literature, we can thus start from the fundamental premise of their theories that the public interest is served by policy decisions and actions that benefit society as a whole. By juxtaposing the general public good with private interests, we can also demonstrate the variety of goals that states set themselves, thereby adding an extra dimension to studies which aim at exploring the multidimensionality of the concept of the state. To this end, the body of literatures on political regimes can bring a concrete sense of various forms that states take. In crude terms, regimes around the world are classified as either democratic and acting in the common good or nondemocratic and acting in a self-serving manner (Acemoglu and Robinson, 2006, p. 16-22). In reality, these forms are placed in a continuum, along which countries develop policies in different directions (see Sirowy and Inkeles, 1990). Taken together, the two fields of study are united

in developing the theme of state goals which is used to inform this work in addition to the concepts of state autonomy and state capacity outlined above.

In short, through exploratory efforts, I ascertained the theoretical aspects of the state that can be analyzed to examine the impact it may have on the adoption of policies. Before I undertook an empirical study, though, I decided to conduct a systematic review of institutional research based on the concept of the state, focusing on three main aspects featuring prominently in the writings of political sociologists, public administration specialists, and political scientists. As we have seen, the state is a commonly used but narrowly investigated concept in institutional scholarship. In this circumstance, a review of the literature following a conventional format would not be appropriate to discuss in detail the extent to which the degree of centrality of the state reflects the complexity of its investigation in this approach. Instead, a systematic literature review was embarked upon with the dual purpose of synthesizing the relative strengths and weaknesses of a large volume of work over a long period of time and laying the basis for conscious efforts to advance our understanding of the state. This review provided an integrative framework of institutional research based on state autonomy, state capacity, and state goals through which observations about the state are organized around the determinants and consequences of these aspects of the state. It was concluded that there is a general awareness of the dimensions of the state but they are afforded limited scope for fine-grained analysis. In the majority of cases, there are certain conceptual and methodological weaknesses that must be overcome. In particular, the four points meriting further consideration are conceptual precision, multidimensionality, theoretical mechanisms, and boundary conditions.

I sought to remedy the shortcomings of prior work through a pioneering study on the effects of three salient features of the state on policy choices and outcomes. Specifically, world stock markets provided an appropriate setting for this study as the spread of this model in the past several decades has been rapid but not as ubiquitous. Moreover, there are vast differences between adopters of stock exchanges in terms of performance. This is an opportunity to identify the relative importance of the state against international actors in national policy making and implementation. In a nutshell, my findings pointed to the conclusion that, even after taking account of a collection of domestic and international factors commonly associated with neoliberal policies, the salient features of the state have a significant effect on the formation and development of stock markets. I believe the study also highlighted my commitment to tackling the issues at stake as I endeavored to draw a

clear distinction between different aspects of the state, develop multidimensional models, theorize about the underlying causal mechanisms, and give consideration to the scope conditions. This approach made it possible to stress the need to jointly consider the dimensions of the state in addition to assessing their independent effects so as to show the variety and complexity of patterns of relationships between state-level phenomena and the diffusion of policies.

The dissertation is organized as follows. Chapter 2 systematically reviews institutional research based on the concept of the state, focusing on the themes of autonomy, capacity, and goals. Chapter 3 formulates hypotheses about the direct and indirect effects of the three dimensions of the state on stock exchange adoption and development. Chapter 4 details sampling and data collection processes, specifies variables to be involved, and describes statistical analyses to be employed. Chapter 5 reports the results of empirical analyses. The last chapter summarizes the main findings from this study and discusses theoretical and methodological implications and suggestions for future research.

2. A SYSTEMATIC REVIEW of INSTITUTIONAL RESEARCH on the CONCEPT of the STATE

This chapter presents a comprehensive review of institutional research based on the concept of the state. I chose to adopt a systematic approach to reviewing the literature rather than follow the conventional format in response to a growing need to synthesize the relative strengths and weaknesses of such large body of work and develop a clear vision of future directions for research in this area. For present purposes, it was thought appropriate to use a predefined conceptual framework instead of focusing on themes emerging from the data. As institutional research lacks a conceptual framework for this analysis, I conducted a preliminary survey of the relevant literatures in the fields of political sociology, public administration, and political science to explore which aspects of the state feature prominently. This introductory survey revealed that the themes that recur in the statist literature are autonomy and capacity, whereas variations on the theme of goals run through the literatures on the public interest and political regimes. Thus, this review looked at these aspects of the state to discern overall patterns in institutional research, with the ultimate aim of informing the nature of subsequent studies. To enable a systematic research synthesis to be produced, I followed the four steps of the review process recommended by Rousseau, Manning, and Denyer (2008). Accordingly, after posing the review questions (i.e., whether institutional scholars study state autonomy, state capacity, and state goals and, if so, in what ways they deal with these concepts), I accumulated relevant publications to be reviewed. Next, I extracted the phenomena of interest from the literature and formatted them into a descriptive summary. Following compilation and coding of relevant data, I eventually arrived at a synthesis of state-related institutional research. More specific details on this process are as follows.

First, the sampling frame consisted of conceptual and empirical articles from nine major management and organization journals, namely, Academy of Management Journal (AMJ), Academy of Management Review (AMR), Administrative Science Quarterly (ASQ), British Journal of Management (BJM), Journal of Management (JOM), Journal of Management Studies (JMS), Organization (ORG), Organization Science (OSC), and Organization Studies (OST). While relevant papers are also commonly published in sociology journals, it is reasonable to assume that articles appearing in these journals differ in their approach to the state. By limiting the literature review to management and

organization studies, I intended to track scientific progress in this field. My search was not intended to be exhaustive, but it would permit a fairly comprehensive examination of the relevant literature, considering that other reviews of institutional research draw conclusions on the basis of a much smaller number of journals and studies (e.g., Hampel, Lawrence, and Tracey, 2017; Lawrence and Suddaby, 2006). For sample identification, I searched Web of Science citation and journal database for articles with the following keywords in their titles, abstracts, or full texts: institution* and state/government/regulat*/polic*. I restricted search results to the period from 1977 (the year in which Meyer and Rowan's seminal study was published) to 2017 (the closest I could get when I began this review). I included "government" and terms derived from "regulat" and "polic" in the keyword search as institutional scholars tend to use these concepts interchangeably with the state. For the 41-year period, my search identified 1168 potentially relevant articles. In order to ensure that other articles relevant to this inquiry were not missed with this search, I also screened articles citing Meyer and Rowan (1977) or DiMaggio and Powell (1983) with the same keywords in their titles, abstracts, or full texts. After eliminating duplicates, these additional searches generated 30 and 39 potentially relevant articles, respectively.

In the first round, an independent coder and I read the abstracts of all articles and selected studies for inclusion in the sample. Studies that attend to the key state-related concepts of mainstream institutional theory such as regulative pillar of institutions or state logic were included in the sample, whereas studies that focus on what is happening inside the boundaries of government agencies (i.e., treat public bodies like any other organization) or offer a bridge between macro and micro levels (i.e., investigate the relationship of the state to individuals) were excluded. Pursuing this sampling strategy, the two raters achieved 94.8% intercoder reliability. Once disagreements were sorted out through discussion, this process resulted in 95 articles. In the second round, I read the full papers and looked for information about three themes that I previously outlined. Due to their differing theoretical foci such as new institutional economics and supranational level of analysis, six more articles were eliminated in this round, resulting in 89 articles in the final sample. To trace out the evolution of research over time, Table 2.1 indicates the number of articles per subsequent five-year periods, except for the last six-year period between 2012 and 2017. It seems that growing attention has been given to the state in institutional research.

The coding procedure involved reading through each article rather than conducting computerized searches to extract the content dealing with the three dimensions of the state

for the simple reason that many of the authors do not address these concepts directly, but use terms that are more or less synonymous (e.g., capabilities instead of capacity). The coding scheme was structured around the analytical dimensions of “autonomy”, “capacity”, and “goals”, in addition to a number of descriptive categories, including “national context” and “findings”, which proved helpful for a more thorough analysis of the data. I conducted qualitative content analysis which, following established procedures (Gioia, Corley, and Hamilton, 2013), built upon identifying the concrete dimensions that inform the understanding of the state within institutional research and then aggregating these first-order codes into broader themes. By iteratively moving between raw data on deductively derived dimensions, I began to observe consistent patterns within and across the studies under review. The eventual consolidation of second-order themes to a set of more abstract categories revealed that observations about the state in institutional scholarship (ranging from passing references to extensive discussions) are organized around its different aspects’ determinants and consequences. The list of codes, along with supporting evidence, is provided in Appendix 8.1.

Table 2.1. Distribution of the search results over time

Time interval	Keyword hits	Relevant hits after the first round	Relevant hits after the second round
1977-1981	11		
1982-1986	21		
1987-1991	21	2	2
1992-1996	130	6	6
1997-2001	143	13	13
2002-2006	181	17	16
2007-2011	227	16	15
2012-2017	434	41	37
Total	1168	95	89

As indicated above, key findings emerged from this review can be broadly classified along *determinants* and *consequences* of central themes concerning the state. On the one hand, factors influencing the state’s autonomy, capacity, and goals can be divided into two categories. Whereas external factors are regarded as pertaining to organizational,

institutional, economic, and social forces, internal factors are associated with structural arrangements, state actions, and broader judicial, legal, and political forces. Consequences, on the other hand, predict or explain the effects of different aspects of the state on organizations, organizational populations, regions, and countries. Figure 2.1 illustrates an integrative framework of this systematic review. It should be noted that relatively few studies move beyond conceptualizations to operationalize state-related constructs. Appendix 8.2 shows the variables that institutional theorists use to measure these concepts.

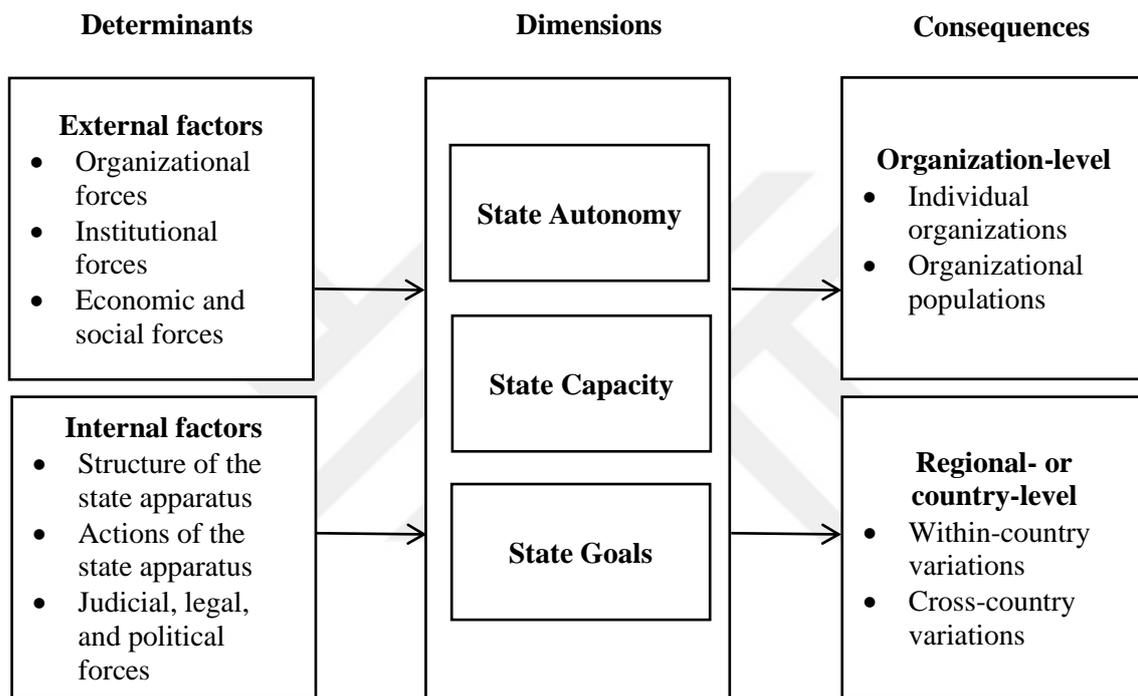


Figure 2.1. Framework of institutional research on the concept of the state

2.1. State Autonomy

Thirty-four out of 89 reviewed papers reflect insights to deal with the concept of state autonomy. Yet, there is little evidence of research that places state autonomy at the center of analysis. Furthermore, none of these efforts subjects the abstract concept of state autonomy to empirical examination. Overall, three papers actively consider possible forms of political independence from outside influence. Hiatt and Park’s (2013) paper “Lords of the harvest: Third-party influence and regulatory approval of genetically modified organisms” addresses the limits imposed on the state’s autonomy by exploring the influence of firms on regulatory decisions. Ingram and Simons’s (2000) paper “State formation, ideological competition, and the ecology of Israeli workers’ cooperatives, 1920-1992” views the state as consciously

driven to destroy rivals to protect its own autonomy. Lastly, Goodstein and Velamuri's (2009) paper "States, power, legitimacy, and maintaining institutional control: The battle for private sector telecommunication services in Zimbabwe" portrays competition between the state and private firms challenging state autonomy to maintain institutional control over the economic sector. The remaining studies delineate external and internal factors as determinants of state autonomy. Specifically, while a significant number of articles are concerned with understanding the ways in which non-state organizations affect autonomous state actions, others discuss internal features of the state as likely sources of greater autonomy.

Approaches to State Autonomy

The predominant position in the literature builds upon an indirect assessment of state autonomy as the focus of substantial attention has been on the way in which non-state organizations (firms, professional or trade associations, nongovernmental organizations, social movement organizations, etc.) affect regulatory decisions or legal activities. Notably, institutional researchers study state autonomy in the absence of a definition of the concept. Moreover, there is no systematic approach to explaining the underpinnings of autonomous state actions. My analysis of three papers that indulge in a more detailed treatment of state autonomy is based on recognition of differences and similarities between the perspectives. First, scholars seem to attach subjective meanings to the concept. When seeking to maximize autonomy, the state has been understood as pursuing greater legitimacy (Hiatt and Park, 2013), political power (Ingram and Simons, 2000), or monopoly control over institutional sectors (Goodstein and Velamuri, 2009). Second, outside threats to state autonomy arise from different sources such as dissatisfied stakeholders (Hiatt and Park, 2013), order-generating organizations (Ingram and Simons, 2000), and private entrepreneurs attempting to disrupt institutionalized patterns of state control (Goodstein and Velamuri, 2009). Third, and relatedly, different mechanisms shield the state against autonomy threats. For instance, regulatory agencies rely upon positive assessments of prominent third-party actors to secure their autonomy (Hiatt and Park, 2013). Moreover, political elites launch rhetorical attacks on others' legitimacy (Ingram and Simons, 2000) and use coercive tactics (Goodstein and Velamuri, 2009) to confront challenges to state autonomy. Despite these differences, a shared interest in the notion of legitimacy characterizes the explorations of state autonomy. While Hiatt and Park (2013) view regulatory agencies as social actors striving to protect their own legitimacy and argue that this makes them vulnerable to being captured, Ingram

and Simons (2000) reveal that the government may vigorously attempt to damage the legitimacy of other organizations performing functions traditionally associated with the state. Therefore, the first perspective suggests that the state's preoccupation with legitimacy threatens its autonomy, and the second perspective suggests that the state's preoccupation with its autonomy threatens competitors' legitimacy. Lastly, studies show a commonality in the way they acknowledge the importance of third parties in promoting the relative autonomy of the state. In particular, Hiatt and Park (2013) highlight the role of powerful stakeholders and peer agencies in helping to preserve government agencies' autonomy, whereas Goodstein and Velamuri (2009) pay attention to the support of other centers of power such as the judiciary and the international community to legitimate the use of force and violence to maintain state autonomy.

External Factors

Studies build predominantly on attempts of non-state organizations to shape the legal environment when considering the determinants of state autonomy. Such organizational activities are seen to be targeted either at the passage or implementation of legislation through five different tactics: lobbying, the capture of regulatory authorities, the development of political engagements, constituency building, and collective action. Therefore, in these studies, organizations are commonly presented as seeking active involvement in political decision making to ensure that policy processes serve their own immediate interests. In this way, non-state actors are assumed to impose constraints on the autonomous actions of state officials. In many cases, lobbying appears to be the main organizational tactic to shape the political environment. In this study, lobbying refers to instances in which organizations pressure regulators to adopt policies or actions that serve their own interests, rather than to legitimate information exchange between organizations and policy-makers. For instance, Wade, Swaminathan, and Saxon (1998) offer a detailed examination of how "institutional action such as legislation does not occur in a vacuum" (p. 910) by describing the impact of social movement organizations on state-level adoption of alcohol prohibition laws from 1845 to 1918 in the United States (US). Attempts to capture regulatory authorities differ from lobbying activity in that they comprise illicit provision of private benefits to public officials. For instance, Uhlenbruck, Rodriguez, Doh, and Eden (2006) examine how multinational enterprises (MNEs) resort to unofficial payments to corrupt officials in order to influence the implementation of regulations in emerging economies. In other cases, scholars propose that private actors develop political engagements

to achieve regulatory outcomes most favorable to their interests. Huang, Geng, and Wang (2017) provide an example of organizations' reliance on such informal networks by suggesting that Chinese firms benefit from *guanxi* relations in various ways, which include, but are not limited to, the protection of their intellectual property assets through norm-based conflict resolution. Lastly, a limited number of articles illustrate constituency building intended to motivate individuals and groups to express their preferences about public policy issues to elected officials (Baysinger, Keim, and Zeithaml, 1985). For instance, York, Hargrave, and Pacheco (2016) note that wind energy advocates achieved their goal of passing a renewable energy portfolio standard in the state legislature through a ballot initiative, i.e., a direct vote by the citizens of Colorado. It is notable that organizations can employ these tactics either independently or collectively. Organized political presence captures the activities of non-business organizations such as trade associations or accounts for collaborative relationships among diverse organizations. From the latter perspective, Simons, Vermeulen, and Knoblen (2016) highlight that a smoke-free coalition of non-profit organizations engaged in lobbying to convince the Dutch government of the need for tobacco control activities. Overall, institutional researchers suggest that different strategies designed to reinforce the prerogatives of private actors limit the design or application of the law and thus compel the state to compromise its independent agenda-setting.

Internal Factors

A relatively small proportion of studies assumes that the political elite's isolation from outside influence can be determined by internal attributes of the state. These factors have been related either to the structure or actions of the state apparatus. Examination of structural elements draws attention to the dispersion of state authority through the administrative or political system. Choi, Jia, and Lu's (2015) cross-country study most forcefully acts on this issue and investigates how the specific structural features of political systems shape the effectiveness of firms' lobbying efforts intended to manage the institutional environment for their own interests and thus achieve "influence rents". Their findings suggest that the impact of business lobbying activities on public policies is weakened when there is stronger political (partisan) competition and a larger number of subnational government tiers. Other institutional studies are more concerned with portraying states as purposeful actors conditioned to counter autonomy-loss threats. For instance, Ingram and Simons (2000) argue that fears of autonomy loss guide the state's actions to contest the legitimacy of particular organizational forms. In less stable environments such as postcolonial regions of the world,

ruling elites are shown to confront challengers to state autonomy through the consolidation of state power rather than institutional development (Goodstein and Velamuri, 2009). The implication is that the context dictates whether complete autonomy is associated with independent decision making by state officials or authoritarian regimes.

Summary

Three major insights emerged from my review of the institutional literature on state autonomy. First, studies reflect alternative ways of conceptualizing state autonomy. Second, non-state organizations, either independently or collectively, produce critical implications for autonomous state actions. And, third, a number of internal factors buffer the state from threats to its autonomy.

However, there are also some underdeveloped aspects of research from this perspective. Most obviously, theoretical propositions receive a disproportionate amount of attention in research. Furthermore, the consequences of state autonomy for organizations, organizational populations, regions, and countries are entirely absent within the institutional literature.

2.2. State Capacity

Sixty-two out of 89 reviewed papers address issues concerning the concept of state capacity. The existing literature explores this aspect of the state by reference to its different dimensions, determinants, and consequences. Thus, this specific theme has not only received greater scholarly attention, it has also been examined from multiple perspectives. Yet, in spite of the number of attempts to incorporate the concept of state capacity, institutional research seems to lack a thorough understanding of the concept. I observed that the majority of contributions advances the conceptualization of administrative capacity. In a similar vein, attempts to measure state capacity mostly incorporate legal institutional environments captured by indicators such as the number of state prohibitions or laws (e.g., Chuang, Church, and Ophir, 2011; Wade et al., 1998). Others consider regulatory enforcement actions, including assessments of the amount of fines and the number of regulated facilities (e.g., Desai, 2016; Short and Toffel, 2010). Still, examination of different aspects of state capacity by a few exceptions opens up possibilities for extending the range of competencies that states have. For instance, in terms of empirical testing, recent research endeavors to use

overall state capacity indicators that tap into different dimensions of the concept (e.g., Guillén and Capron, 2016). Similar to analyses of state autonomy, the development of state capacity is tied to both external and internal factors. However, unlike autonomy-based accounts, institutional research also devotes attention to the consequences of state capacity at different levels of analysis.

Dimensions of State Capacity

The institutional research program succumbs to the tendency to treat state capacity predominantly in terms of the ability to build a bureaucratic apparatus premised on rule-making and enforcement actions. Out of 62 papers exploring state capacities, 58 point to this basic source of strength often called administrative capacity. More specifically, the literature follows the common practice of distinguishing between two types of administrative capacity, that is, capacity for policy making and capacity for policy implementation, and suggests that they could be independent of one another. Governmental authorities may be *unable* or *unwilling* to demonstrate state capacity. For instance, Swan, Bresnen, Robertson, Newell, and Dopson (2010) point out that the United Kingdom (UK) government's policy goal of reorganizing the production of genetics knowledge failed to be realized as organizational substructures within the state apparatus continued to support their own interests rather than the state-sponsored initiative. Taking a differentiated approach, Wicks (2001) indicates that regulatory inspectors deliberately opted not to enforce statutory provisions regarding coal mines and occupational health and safety which seem potentially capable of having prevented the disastrous mining explosion in Nova Scotia, Canada.

Only a few other studies have been attentive to different strengths of the state. Among these are capacity to establish property rights, normative capacity, coercive capacity, and extractive capacity. Capacity to "define, enforce, and otherwise manipulate property rights" (Campbell and Lindberg, 1990, p. 643) is conducive for exploring how the state can influence economic actors. For instance, Leblebici, Salancik, Copay, and King (1991) claim that this state capacity constrained potential practices of agents in the US radio broadcasting field by controlling the allocation, use, and transfer of spectrum rights. Normative capacity involves state pressures to diffuse socially valued expectations. In a study of Singaporean Chinese family businesses, Tsui-Auch (2004) analyzes state-driven isomorphic pressures toward professional governance, which include normative isomorphism enhanced through multiple channels. Coercive capacity accords the state the power to maintain domestic order.

For instance, Phillips and Hardy (1997) examine the discursive activities by the UK government to construct a self-serving refugee identity since asylum-seekers were viewed as “a potential threat to its agenda of border control and limited access” (p. 13). Finally, extractive capacity refers to the state’s ability to ensure tax compliance (Ottervik, 2013). Slangen, Baaij, and Valboni (2017) provide insights into why US firms free themselves from repatriation taxes through inversions and thus deprive the government of income tax revenues despite the introduction of legislation restricting such activity. Overall, this second group of researchers shows an increased appreciation of different aspects of state capacity.

External Factors

External factors that influence state capacity include a set of organizational, institutional, economic, and social forces. With the exception of two contributions, organizational influences have been connected to administrative capacity. Research, from this perspective, introduces organizational tactics and characteristics that reduce the effect of state capacity on organizations. This category consists of active resistance, regulatory non-compliance, low levels of state dependence, industry characteristics, and collective action. Active resistance enables organizations to dismiss institutional pressures originating from the state and thus lessens the impact of policy making or implementation capacity. Micelotta and Washington’s (2013) in-depth case study illustrates that professional associations’ complete lack of endorsement of the reform imposed by the Italian government eventually led to the retreat of the state and re-establishment of the status quo by delegating the reform back to the professions. Therefore, their analysis indicates that successful mobilization of professions, which included resistance strategies such as street protests and strikes, disrupted the implementation of state policies. In some cases, active resistance and regulatory non-compliance, i.e., violations of the law, are used in concert. For instance, Simons et al.’s (2016) research concerning the Dutch hospitality industry demonstrates that the state was unable to impose the adoption of the smoke-free workplace legislation. Small bars’ opposition to the smoking ban typically comprised sidestepping the law by changing the nature of the establishment (implying active resistance) and giving customers the opportunity to donate money to pay for fines (implying regulatory non-compliance). Moreover, several contributions assume that state capacities become impaired when organizations’ ties to the state are weak or their industries are subject to little government oversight. For instance, Tsui-Auch (2004) finds that many Chinese businesses maintain a clear split between the professionalization of management and the continuity of family rule

despite coercive and normative pressures exercised by the Singaporean state toward professional management. Interpretation of selected case illustrations suggests that low levels of state dependence allow firms to develop management structures to pursue their own interests. Lastly, Dhalla and Oliver's (2013) study of Canadian banks underscores that a strong industry identity and oligopoly behavior created a marked tendency for firms to dismiss institutional pressures from formal legislative bodies for higher-quality lending practices to small and medium-size enterprises. As a result, state intervention failed despite the coercive power and motivational investment. This case study also shows that certain combinations of a number of factors foster organizations more effective at inhibiting state capacities – in this case, organized action accompanied regulatory non-compliance and industry effects since the Canadian Bankers Association mobilized collective-level non-responsiveness.

In some studies, outside interference in state capacity extends beyond organizations to encompass wider forces such as institutional, economic, and social conditions. At the institutional level, Heese, Krishnan, and Moers (2016) suggest that simultaneous conflicting pressures from a variety of constituents give rise to multiple belief systems within regulatory organizations and thus limit administrative capacity. In this study, the US Department of Health and Human Services provides an example of this type of agency in which policy implementation systematically departs from formal rules. At a more macro level, economic development and crucial events in history affect the dynamics of state capacity. In contrast to organizational and institutional forces, this particular group of external influences improves the effectiveness of state capacities. For instance, Marquis and Qian (2014) demonstrate in the context of China that regional economic development [measured as a province's gross domestic product (GDP) per capita] contributes to a greater likelihood for government monitoring of corporate social responsibility (CSR) reporting. Few examples also point to the role of crises or shock events in changing the capacities of states. For instance, by studying the evolution of the British Columbia Water Act from 1914 to 2002, Jennings, Schulz, Patient, Gravel, and Yuan (2005) report that world wars aid legal rule proliferation (enactments and amendments). Moreover, Elliott and Smith (2006) offer insights into how the regulatory authorities were failing to properly apply the provisions of the Safety at Sports Ground Act, but secured rule enforcement immediately following the Bradford Fire. Thus, in the case of the UK soccer industry, different patterns of regulation emerged at different times, which involved a switch from mock bureaucracies to a

punishment-centered approach. These two studies underline that a crisis event can act as a catalyst for reinforcing state capacity for policy making or implementation. Lastly, Vasudeva (2013) draws attention to societal predispositions as underpinning the effectiveness of state capacity by proposing that the state's greater reliance on administrative versus normative capacity is likely to be determined by societies' proclivities toward adapting to regulatory controls or normative systems.

Internal Factors

A second set of factors pertain to the internal workings of states in addition to judicial, legal, and political forces. The tendency to anticipate administrative capacity of the state also prevails in this literature stream. On the one hand, this line of research produces structural explanations of the development of state capacity, and particularly highlights the crucial role of (de)centralization of state authority. For the most part, studies provide descriptive accounts of how the fragmentation of the state structure has dampening effects on state capacity. For instance, Vermeulen, Buch, and Greenwood (2007) find that the multi-tier structure of the state served as one of the impediments to the Dutch government's attempts at market creation by enabling ministries to take divergent actions and provincial and local governments to interpret national policies in different ways. In other words, the organization of the state as structured by multiple centers of authority weakened capacity for policy implementation despite the fact that formulated policy promoted a viable alternative to existing practices. On the other hand, this line of research focuses on actions of the state apparatus as a means of facilitating or inhibiting state capacity. Ensuring control of corruption to increase state capacity is an example of such endeavors that belong in this category. Furthermore, the adoption of an appropriate enforcement tool by the state is identified as key to effective legal control. For instance, investigating how the enforcement activities of regulators affect corporate compliance with law, Short and Toffel (2010) demonstrate that direct regulatory threats dampen organizations' normative motivations, whereas high levels of regulatory surveillance promote meaningful implementation of symbolic commitments.

Taking a broader focus on internal factors that influence state capacity, some studies address judicial, legal, and political conditions. Researchers attend to the importance of legal infrastructure, the development of the judiciary, political stability, and government policy for building state capacity. For instance, Peng and Heath (1996) assert that the establishment

of a property-rights-based legal framework constitutes a prerequisite for the state's capacity to protect property rights. Jennings et al. (2005) develop a more comprehensive framework to explore the determinants of administrative capacity and find that legal rule births and changes are stimulated by court involvement in interpretations of the law and the control of the government by progressive political parties, while they are attenuated during times of political transitions. Furthermore, research findings reveal that government policies may be responsible for regulatory failures of the state. For instance, Erakovic and Wilson (2015) demonstrate the reluctance of the New Zealand government to act in accordance with regulatory requirements to completely remove entry barriers, since "making full competition possible in the key industries would decrease government revenues, both by reducing the incumbents' prospect for profitable performance and by making SOEs unattractive for potential buyers" (p. 308). Overall, the literature emphasizes that particular kinds of institutional environments become highly conducive to reinforcing state capacity, whereas certain political priorities hinder the state's capacity to regulate.

Organization- or Population-level Consequences

Institutional research assesses the consequences of different kinds and varying degrees of state capacity for a wide range of organizational outcomes and processes of population dynamics. For instance, within organizational-based research, state capacity informs assessments of efficiency and effectiveness. While Oliver (1997) proposes that a large number of enforceable rules, regulations, and codes reduce firms' ability to operate efficiently and profitably, Berrone, Gelabert, Massa-Saluzzo, and Rousseau (2016) argue that strong law enforcement capacities of governments (measured as the total number of fines against firms that fail to comply with labor laws) enhance the effectiveness of welfare-oriented nonprofits by generating social awareness and increasing the legitimacy of these organizations. Another stream of research shows that regulatory reforms improve venture performance. For instance, Eesley (2016) finds that institutional changes that lower barriers to failure create higher-growth firms. State capacity is also assumed to affect particular aspects of organizational structures such as board committees, administrative components, internal compliance procedures, and even organizational forms. For instance, Hinings, Casebeer, Reay, Golden-Biddle, Pablo, and Greenwood (2003) recognize that with the passage of legislation, the government initiated transformational change in the Alberta healthcare system that imposed the restructuring of hospital boards, public health boards, and nursing home agencies into regional health authorities (RHAs). This plausibly represents

a structural reform in the public sector through a top-down policy initiative. Similarly, Butzbach (2016) compares the role of the state in the restructuring of savings banks in France and Italy and shows how different policy-making structures led to opposite outcomes in the two countries: while the French policy-making structure helped to solidify the persistent distinctiveness of savings banks as an organizational form, the Italian policy-making structure gave rise to quasi-disappearance of savings banks as distinct organizations.

The constellation of organizational practices shaped by state capacity includes procedures and processes. For instance, Chuang et al. (2011) provide evidence that the increased number of state nondiscrimination laws over time accelerated the rate of same-sex partner health benefits adoptions by corporations even though these laws did not impose any negative sanctions for non-compliance. Institutional studies also document the impact of state capacity on organizational strategies such as cross-border investments (Holmes, Miller, Hitt, and Salmador, 2013; Vasudeva, 2013) or relocations of headquarters (Slangen et al., 2017), preferred entry mode and location (Meyer and Nguyen, 2005), and diversification choices (Diestre and Rajagopalan, 2011). Researchers within another subgroup are interested in understanding changes in organizational responses in the face of a given state capacity. Work in this area frequently examines when organizations would prefer lobbying or the development of political engagements. However, institutional accounts offer contradictory interpretations of lobbying that is exercised reactively. While Heese et al. (2016) posit that regulators' unrigorous enforcement actions prompt organizational activity aimed at influencing public policy, Shirodkar, Konara, and McGuire (2017) argue that contexts characterized by higher quality regulatory institutions encourage the use of lobbying. As for the development of political engagements, studies support the view that organizations seek to build relational networks to compensate for the weakness of the state in enforcing property rights. For instance, Eesley, Li, and Yang (2016) suggest that, in China's institutional environment, political connections of organizations often serve as substitutes for underdeveloped intellectual property regulations to guard against opportunistic behavior. A few contributions address other organizational responses to state capacity. For instance, in the context of Chinese listed firms, Luo, Wang, and Zhang (2017) illustrate that the coexistence of competing pressures from different levels of government triggered a specific decoupling response – rapid adoption with low-quality implementation. Lastly, institutional researchers examine the effects of state capacity on ecological processes. For instance, Ingram and Inman's (1996) study of the Niagara Falls tourism industries in Canada and the

US finds that the establishment of government institutions to solve a collective action problem increased the founding rates and decreased the failure rates of hotels on both sides of the falls.

Regional- or Country-level Consequences

The explorations of large-scale consequences of state capacity follow two different paths in institutional theory. The first builds on within-country variations, while the second relates to cross-country variations. Studies with a single-country focus refer to regional variations and illustrate that either a given kind of state capacity can be relatively strong in particular geographic areas or different approaches to policy formation can be attributed to the dispersion of state authority through a federal system, as in the American context. For instance, Huang et al. (2017) highlight that the quality of the intellectual property rights legal system varies significantly across the inland and coastal provinces of China. A number of others indicate that the political orientations of subnational administrations differ, resulting in state-specific heterogeneity of legislation (Chuang et al., 2011; Luoma and Goodstein, 1999). On the other hand, a group of researchers points out that different historical trajectories lead to cross-country variations in terms of the development of state capacity. For instance, Spencer, Murtha, and Lenway (2005) categorize national political institutional structures under four types, i.e., state corporatism, state nation, liberal pluralism, and social corporatism, and situate countries within each type of polity somewhere along a continuum from strong to weak.

Summary

Three key contributions seem to characterize examinations of state capacity in institutional theory. First, the literature supports the view that state capacity is a multi-dimensional phenomenon. Second, administrative capacity emerges as the most central component of the state apparatus and interconnects with various factors. Third, researchers facilitate a relatively comprehensive treatment of state capacity by integrating the study of external and internal effects on state capacity (e.g., Jennings et al., 2005), considering the consequences of state capacities for multiple spheres in combination (e.g., Holmes et al., 2013), and synthesizing analyses of the determinants and consequences of state capacity (e.g., Marquis and Qian, 2014).

Despite these achievements, institutional research largely neglects several issues relating to the concept of state capacity. First, empirical models that explore the theorized relationships of state capacity are often absent. For instance, much of the reviewed literature on factors that offset the effect of state capacity on organizations relies on anecdotal evidence. Moreover, some of the research results remain equivocal. As I noted above, studies offer contradictory evidence for the consequences of state capacity for organizations. Finally, despite the presence of theoretical assumptions, empirical work steers away from recognizing state capacity as a multi-dimensional concept and uses variables that simply reflect regulatory and legal functions.

2.3. State Goals

Twenty-five out of 89 reviewed papers contain assertions about state goals. Therefore, this dimension has received relatively little attention in the institutional literature. Existing research in this area builds largely on notions of direction and comprehensiveness. Studies of direction are interested in states in terms of “the overarching postures they assume toward national economic life” (Fainshmidt, Judge, Aguilera, and Smith, 2018, p. 310). The concept of comprehensiveness performs a useful function within this framework by capturing the distinction between goals that are in the interests of the general polity and goals that maximize narrow interests of a subset of the polity. While broad-based interests are purported to maintain employment (Yiu, Bruton, and Lu, 2005) and promote economic development (Wicks, 2001), among others, examples of particularistic interests include the pursuit of political support and reelection (Zhou, Gao, and Zhao, 2017). In my view, there is not a systematic attempt to place state goals at the center of analysis in institutional theory. However, a few studies directly link state attempts to attain certain goals to important organizational and economic outcomes (e.g., Özen and Akkemik, 2012; Uhlenbruck et al., 2006).

The literature involves different operationalizations of the concept of state goals. A central line of inquiry focuses on the state’s stance on policy issues. As such, some studies draw on indicators of the preferences of the government for particular policy areas such as income distribution (Berrone et al., 2016), while others depend on assessments of the ideologies of political parties such as pro-social/civic progressive parties (Jennings et al., 2005) and regional-national parties (Greenwood, Diaz, Li, and Lorente, 2010) as suggestive

of state goals. The remaining research derives measures of the use of public power for private benefits. Specifically, these studies collect corruption data utilizing multiple sources (e.g., Choi et al., 2015; Uhlenbruck et al., 2006).

The Nature of State Goals

The debate about state goals proceeds along two lines within the literature. First, researchers provide a theoretical basis for addressing long-term political orientations within and across states. Specifically, institutional studies reflect awareness of different types of states such as liberal (e.g., Özen and Özen, 2009), developmental (e.g., Wicks, 2001), welfare (e.g., Berrone et al., 2016), capitalist (e.g., Tihanyi and Hegarty, 2007), socialist (e.g., Nee, 1992), and predatory (e.g., Zhang, Marquis, and Qiao, 2016). Occasionally, assumptions about a particular model are implicitly embedded in the writings of institutional theorists. For instance, Chung and Beamish's (2005) analysis of foreign subsidiaries suggests that host governments of emerging economies are likely to foster predatory orientations as they "often face an incentive to make long-term policy commitments that induce foreign direct investment, but later renege on those commitments and expropriate the rents generated by the foreign firms" (p. 39). More generally, the literature explicitly mentions a hybrid of the two types. In one such study, Özen and Akkemik (2012) demonstrate that the Turkish state combines the implementation of liberal policies with developmental goals. Others provide some indications that the Chinese state seeks both capitalist and socialist ideals (e.g., Greve and Zhang, 2017).

Second, researchers recognize that those in control of state resources determine whether important benefits accrue to the public or private sphere. More than half of the studies found to be associated with state goals account for policies aimed at the promotion of collective goals. For instance, Pahnke, Katila, and Eisenhardt (2015) adopt a public interest framework and state that "a focus on fairness and common good permeates government agencies" (p. 610). By contrast, advocates of special interest theory describe political processes by which the state apparatus becomes an instrument for pursuing private agendas. Such personal preferences are seen to belong either to state officials or a narrow political elite. For instance, Rodriguez, Uhlenbruck, and Eden (2005) pay attention to individual-level behavior and study corrupt payments to the authorities. Usually, the type of state defines targets of strategic advantage. For instance, the welfare state is committed to fostering the well-being of the citizenry, whereas the predatory state seeks to provide

benefits to the members of a relatively small group (Carney and Witt, 2012). Yet, the distinction between societal and private goals cannot necessarily be seen as clear-cut. Studying attempts to introduce pay television services in the US, Gurses and Ozcan (2015) illustrate how the use of strategic framing by various actors influences what serves the public interest (“free television” versus “superior technology”).

Organization-level Consequences

State goals affect different aspects of organizations, particularly effectiveness, performance, structure, practice, and strategy. Researchers reveal different patterns of relationships. For instance, Berrone et al. (2016) suggest that weak government policies with regard to the provision of social services to help low-income individuals undermine the effectiveness of welfare nonprofits. Studying the dynamics of market transition in China, Nee (1992) highlights that progression to capitalism leads to structural changes in collective enterprises. In a different vein, Zhou et al. (2017) indicate that politicians’ misuse of state-owned enterprises (SOEs) to achieve their personal objectives reduces firms’ efficiency in generating innovation output.

Country-level Consequences

The literature directs attention to economic consequences of state goals at the country level. These include inward foreign direct investment (FDI), economic growth, and openness to international trade. Though few in number, studies that examine such factors suggest that private goals of state actors are negatively associated with direct investment flows into an economy, economy-wide growth, and openness to international trade (Holmes et al., 2013; Rodriguez et al., 2005; Uhlenbruck et al., 2006).

Summary

The set of assumptions that underpin research on state goals can be summarized as follows. First, the literature allows the development of alternative ways to conceptualize and measure state goals. Second, goal formulation appears to be perceived as varying according to the organization of national institutional systems and adherence to societal goals or special-interest actions. Third, the pursuit of certain goals produces important consequences for organizations and the national economy.

While institutional research sheds light on the concept of state goals, there is a tendency to downplay important conceptual and methodological issues. Notably, there remains a disparity between theorization and empirical analyses in terms of the multiplicity of approaches to the study of state goals. Existing measures of the concept focus attention either on particular policy choices of governments or the pursuit of personal enrichment by corrupt officials. On the other hand, conceptual development permits a more comprehensive account of state goals by alluding to different types of states and policy objectives. Finally, analyses of the determinants of state goals are non-existent in the literature.

2.4. The Overall Evaluation of Findings

This systematic review draws important new insights for future state-related institutional research. In fact, significant progress has been made in the field over the past four decades. All three dimensions of the state have received research attention. Various conceptualizations and operationalizations have been proposed. Different types of determinants and outcomes have been investigated. And, the study of the state has been enriched by insights from multiple country contexts and research settings. Yet, a more systematic perspective can help develop further understanding of the nature and impacts of the state. For instance, there has been varying levels of interest in different aspects of the state. While state capacity has been the most researched dimension, the concept of state goals has received the least amount of attention. Also, despite reflecting alternative ways of conceptualizing and measuring the dimensions of the state, institutional scholarship has seldom offered detailed descriptions of these constructs. Moreover, the relevant literature has underemphasized multidimensional conceptions and causal pathways. Finally, a need exists to define the scope conditions of analyses of the state in institutional theory. To summarize, four overarching issues require closer scrutiny: (i) conceptual precision, (ii) an integrated approach, (iii) theoretical mechanisms, and (iv) boundary conditions. Below, I provide a discussion of these shortcomings and how to remedy them.

2.4.1. Lack of Conceptual Precision

My findings suggest that a widespread absence of a careful characterization of the dimensions of the state has resulted in conceptual imprecision in several ways. First, little work has encompassed appropriate labeling of state-related constructs. In fact, this analysis

has become more reliant on inferences about the presence of these themes in institutional studies than immediately recognizable content. For instance, research that illustrates how internal structural fragmentation inhibits administrative capacities of states generally implies this relationship without any explicit use of the concept of state capacity (e.g., Luo et al., 2017). Likewise, the conception of state types constitutes somewhat vague associations (see, for example, Wicks, 2001 for an allusion to the developmental state in Canada). This lack of precise specifications complicates interpretations of whether an institutional study plausibly captures any of the three areas of inquiry identified in this analysis, and if so which one(s).

Furthermore, the literature has paid little attention to theoretical elaboration of the dimensions of the state. Thus, apart from a few analyses that have achieved conscious reflection, institutional theory rarely facilitates the development of a refined understanding of the state. Most obviously, the research of a particular group of scholars that incorporates the notion of the state in institutional analyses without referring to any of its dimensions (e.g., Assenova and Sorenson, 2017; Keister, 2004) serves to illustrate the relatively superficial treatment of the concept. This narrow focus may be a result of the absence of careful theory building and researchers only exacerbate the situation by subscribing to subjective and incompatible assumptions. For instance, the existing work on state autonomy avoids systematized thinking and attaches multiple meanings to the same phenomenon. Therefore, possible forms of political independence vary widely: parts of the state apparatus seek to minimize the effects of interventions by external actors such as private entrepreneurs (Goodstein and Velamuri, 2009) and professional groups (Guillén and Capron, 2016), or other authorities within the state such as lawmakers (Hiatt and Park, 2013) and the central government (Choi et al., 2015). Even though institutional studies have failed to delineate a separation between these alternative ways of framing state autonomy, the two perspectives seem to represent different realities and thus require special recognition.

An equally important issue is the propensity of researchers to obscure conceptual distinctions among the dimensions of the state. Holmes et al.'s (2013) work epitomizes the inadequacy of differentiation between state-related theoretical constructs. In the study, the conceptual development of country-level formal institutions purported to be enacted by the activities of governments suffers from fuzzy boundaries. For instance, "political institutions" might be taken to be indicative of both state autonomy and state goals. This is because the concept simultaneously embodies the mechanisms of business influence over policy making and application (implying conditions diminishing state autonomy) and a comparison

between democratic and autocratic systems (reflecting comprehensiveness of state goals). Ambiguity and contradictions also prevail in measurement as the corruption variable has been expected to load on the factor of “regulatory institutions” that appears to be tightly linked with administrative capacities of states due to a focus on the establishment and enforcement of laws. This example shows that a factor that can be regarded as a determinant of state capacity, i.e., “the use of a public office for private gain, thereby reducing the integrity of regulatory institutions” (Holmes et al., 2013, p. 545), has been considered a proxy for state capacity. When theoretical and empirical models fail to draw clear delineations between analytically distinct aspects of the state, it becomes a matter of interpretation by readers to disaggregate the state into its constituent characteristics and identify the boundaries between constructs.

2.4.2. Lack of an Integrated Approach

This review of the literature highlights that the multidimensionality of the state has generally been ignored by institutional theorists. Instead, the state has commonly been analyzed by examining the relationship between one of the three dimensions of the state and one or more potentially important factors. Even when attempts have been made to accommodate multiple dimensions of the state within research models, there has been a dearth of efforts to operationalize several distinct theoretical constructs simultaneously. Given the prevalence of this application, the literature falls short of understanding these dimensions in tandem. Such an approach is likely to lead to various methodological issues. First, the exclusion of relevant variables can create specification error. In particular, when proposed models feature only one of the dimensions, the estimated effect of the included variable can easily reflect the effects of the omitted variables as well. For instance, it seems reasonable to assume that the relative autonomy and capacity of given states can affect the entry-mode decisions of MNEs into emerging economies in addition to the typically selected corruption variable representing state goals (e.g., Uhlenbruck et al., 2006). Therefore, currently available single-variable models may be overestimating the impact of the independent variables under study. Moreover, excluding key determinant factors from the models reduces the amount of explained variation in the dependent variable(s). Such measurement practices eventually give rise to diminished levels of overall predictive accuracy of the analyses. For instance, the imprinting-based arguments of Shirodkar et al. (2017) suggest that the nature of regulatory institutions in MNEs’ home countries affects

their lobbying expenditures in host countries. However, it can be justified on theoretical grounds that cross-border lobbying would be equally susceptible to the effects of degrees of state autonomy and types of national political economies. Including all three independent variables in revised models may thus provide possible improvements over the existing model.

From a different standpoint, lack of an integrated approach hinders a fair appraisal of interactions among the dimensions of the state. Although theoretical support exists for the inherent interdependencies between distinct factors, estimates seem to be biased as a result of an incomplete view of the combined effects of multiple indicators. For instance, even though Guillén and Capron (2016) theorize about the interaction between state autonomy and state capacity, their measurement model contains only the independent effect of state capacity. More specifically, the underlying premise of the proposed framework is that state capacity constitutes a prerequisite for policy-makers' independence from social groups. Additionally, the conceptual model indicates a mediated moderation mechanism through which state autonomy mediates the impact of state capacity on the relationship between professions and policy making. However, the construct of state autonomy disappears in the empirical test and the analysis directly addresses the moderating impact of state capacity on the adoption of new policies. This study thus illustrates how institutional research oversimplifies the effects of states on the relevant outcomes. Lastly, mediational processes tend to go unnoticed due to the neglect of an integrated view of the state within the institutional literature. For instance, researchers suggest that in the absence of the regulatory capacities of states to build effective formal institutions, organizations generate conditions unfavorable to state autonomy by cultivating close relationships with authorities, which then affects important outcomes such as firms' patenting strategies (e.g., Huang et al., 2017). In this approach, the implication is that state autonomy mediates the relationship between state capacity and a given dependent variable. Yet, when studies consider a unitary dimension instead of the operation of mediating factors, relationships among measured variables can be altered substantially or eliminated altogether. Overall, the issues surrounding the relative inattention to integrative models lead to specific problems and prohibit a balanced representation of the state in empirical investigations.

2.4.3. Underexamined Theoretical Mechanisms

This study provides evidence that institutional researchers have not been particularly concerned with identifying the precise channels through which different dimensions of the state affect certain outcomes. Stated differently, due to the focus on correlational analyses, the underlying processes that give rise to relationships among variables have remained unclear within the institutional literature. Most notably, *ad hoc* addition of variables to the analyses demonstrates the simplistic nature of specified models. For instance, Luoma and Goodstein (1999) view change in the enabling laws regarding stakeholders as a primary determinant of the adoption of stakeholder-oriented board commitments but provide little insight into the theoretical mechanisms that enhance corporate responsiveness to such legal developments. Specifically, the conceptualization of this relationship rests on loosely combined assumptions that the law is an important influence on organizations, and that the law can exert not only coercion but also have mimetic and normative effects. Even though there is support for the hypothesized relationship, we do not know exactly why other-constituency statutes increase stakeholder representation on boards of directors. In a similar fashion, Sanders and Tuschke (2007) identify regulatory legitimization as one of the processes facilitating the transnational diffusion of institutionally contested practices without theoretical elaboration of causality. Instead, guiding assumptions portray an association between the two constructs, such that the mere legal sanction of the stock-based incentives promotes the adoption of these programs.

Nonetheless, a number of contributions have the potential to allow for a deeper understanding of the underlying causal mechanisms. An example of such research is Diestre and Rajagopalan's (2011) study of the impact of environmental factors on corporate diversification. In this case, an extended discussion of how target-industry regulatory sanctions affect firms' diversification activities highlights the combined effect of the benefits and costs associated with entering a new industry. As such, the effort to examine this relationship extends beyond suggesting a simple correlation between the two variables to predict a curvilinear effect of regulatory sanctions. Based on the proposed logic, increases in the level of sanctions have a positive impact on the likelihood of diversification up to a point, after which the expected costs associated with entering a sanctioned industry outweigh the expected benefits associated with value creation opportunities. Therefore, we know exactly why we would observe the initial positive and the later negative effect of regulatory sanctions on the likelihood of diversification. As in this example, researchers need to do

more than just state that the higher the value of an independent variable, the more impact it has on a dependent variable. Moreover, when attempting to incorporate multiple dimensions of the state in institutional analyses, researchers would be required to devote attention to explaining how the relationship between one dimension and an outcome variable differs from the relationship between another dimension and the same construct.

2.4.4. Underspecified Boundary Conditions

The results of this systematic literature review indicate that researchers have yet to explore the boundary conditions of analyses of the state in institutional theory. To date, taken-for-granted assumptions have underpinned much of the research from this perspective. Most notably, an overemphasis on liberal democracies explains the tendency of institutional scholarship to portray the state as a rational-legal system generally adhering to collective goals and subject to the influence of outside groups mainly through lobbying activities. Such framing seems to have constrained the capacity of institutional theory to grasp the nature of the state in different institutional environments. Specifically, I recognized that while the highest percentage of single-context studies obtains data from the US, institutional theorists rarely attempt to establish the scope conditions of their observations. Interestingly, China-related studies – which comprise the next largest group – pay more attention to the issues of generalizability. For instance, Luo et al. (2017) suggest caution in developing general conclusions from the Chinese context: “...While China’s transitional economy provides an ideal setting for testing our framework, the particularities of the setting should be recognized. The strong role of government in the economy and relatively weak market institutions may render our findings more applicable to transitional and emerging economies” (p. 339). In a similar vein, Marquis and Qian (2014) reinforce the view that studies that focus on the Chinese market may have limited generalizability. Yet, a relatively small proportion of institutional studies addresses scope considerations. Therefore, an overly simplistic and partial view of the state overrides the importance of the context. This approach is likely to lead to particular conceptual and methodological problems. First, scholars may fail to recognize that the meanings of state-related theoretical constructs potentially differ from one context to the next. In such situations, a uniform application of these concepts to a vast array of institutional systems may cause the researcher to overlook subtle variants of the key factors or search for non-existent characteristics. In fact, there has been an almost total lack of appreciation for locally valid constructs, with the exception of Goodstein and Velamuri

(2009) who draw attention to the different connotations associated with state autonomy in the Western versus postcolonial settings.

In addition to producing theoretical inconsistency, scholars may misrepresent the relationships between the dimensions of the state and associated variables without an explicit consideration of the context of analysis. Variations between countries may have implications not only for the type of the relationships but also the direction of the relationships. It therefore becomes imperative that the researcher detect existing relationships, incorporate relevant factors, and accurately determine the directionality. However, very few studies have challenged the established orthodoxies in this regard. For instance, this study confirms that the literature involves a heavy reliance on the study of top-down influence of bureaucratic mechanisms on social groups, rather than vice versa. This means that the typical examination of liberal political orders has led to the continued neglect of the impact of non-state actors on the state apparatus. Specifically, I observed that 45 out of 89 reviewed papers are concerned with analyzing how regulatory pressures affect a variety of organizational outcomes (see Appendix 8.3 for the list of researched relationships in this manner). Nonetheless, some notable contributions call a search for the two-way dynamic between the state and organizations (e.g., McKay, 2001), and this should matter especially in certain contexts. Finally, scholars may fail to show variation in theoretical mechanisms across the contexts in which institutional theory is being tested. For instance, research in this area lacks a conceptual basis for identifying the channels through which the impact of legislation on the adoption of management practices varies across different institutional environments. The literature has reported that while state laws increase the number of adoptions of same-sex partner health benefits in the US (Chuang et al., 2011), legislation has no significant effect on the adoption of employee performance managements systems in the Low Countries (i.e., the Netherlands and Flanders) (Decramer, Smolders, Vanderstraeten, and Christiaens, 2012). Yet, studies tend to ignore such variance in research findings and suggest that future work may carry out replications of current investigations in other kinds of organizations. As a result, theoretical and empirical models still need a way to develop more nuanced understandings of the underlying mechanisms that link state-related constructs and potentially important factors.

3. THE STATES and the DIFFUSION of STOCK EXCHANGES ACROSS COUNTRIES

3.1. Theoretical Motivation

Drawing from my systematic review of institutional research on the concept of the state, I attempt to address overarching limitations of prior work through an empirical examination of the role of particular national characteristics in shaping policy adoption and implementation. Therefore, the main motivation of this study is to remedy the long-standing problems in the literature while carrying out the widespread practice of focusing on the right side of Figure 2.1. More precisely, a cross-national analysis of the impacts of the states on stock markets allows me to deal with the issues of conceptual precision, multidimensionality, theoretical mechanisms, and boundary conditions highlighted in the previous chapter. By presenting the conceptual definitions of all three dimensions of the state, I endeavor to develop a more solid theoretical foundation and provide analytical separation between these constructs. In this way, I replace the unitary conception of the state that has dominated the field with an integrative perspective and proceed to explore the relationships between multiple dimensions of the state and other variables of interest simultaneously. With this approach, I also seek to test moderational and mediational hypotheses. Furthermore, I develop theoretical explanations of the underlying mechanisms through which each dimension is likely to influence national financial policy and development. Finally, I devote attention to the scope conditions of the current analysis and identify which dimensions and factors are more likely to account for certain policy choices and outcomes. Overall, insights from the review of the literature enhance the potential to make important contributions to institutional theory.

3.2. Research Focus

This project aims to deepen our understanding of national policy making and implementation in the context of world stock markets. The overall argument of the study is that differences between countries in stock exchange adoption and implementation could be attributed to differences in the key attributes of the states. In a nutshell, an examination of alternative policy courses that puts the state centre stage promises to have implications for the institutional literature in general and the diffusion literature in particular.

3.3. Theory and Hypotheses

Exchanges provide the marketplace where participants engage in the trading of financial instruments such as stocks, bonds, and derivatives (Brummer and March, 2013). Although the purchase and sale of shares offering a residual interest in firm profits can be traced back to the thirteenth-century Italy, the early seventeenth century saw the emergence of the modern form of the stock market with the establishment of the Amsterdam Stock Exchange (Wojcik, 2013). Notwithstanding a long-term historical trajectory, however, the global stock market boom has occurred during the past several decades. Generally, the escalation of the neoliberal policy paradigm is assumed to be influential in stimulating the worldwide spread of this model. As many scholars point out, the shift in this direction has gathered momentum from the 1980s onwards. Triggered by the growing international dissatisfaction with interventionist policy making, the neoliberal regime emphasizes a highly restricted role of political actors in the economy (Cohen and Centeno, 2006). Thus, as part of a turn towards reforms supporting free trade, (re)opening equity markets has become popular with policymakers in order to provide opportunities for corporations to achieve growth while avoiding dependence on the state. In fact, the number of countries with stock exchanges have increased dramatically between 1980 and 2017, from 56 to 139 (see Figure 3.1).

It is well documented that an institutional theory lens may be usefully applied to study adoption and diffusion processes, whether at the interorganizational (e.g., Chuang et al., 2011; Rao and Sivakumar, 1999) or international (e.g., Henisz et al., 2005; Polillo and Guillén, 2005) levels. According to early institutional accounts, environmental contexts exert pressures toward isomorphic change as organizations seek to gain legitimacy and improve survival chances (DiMaggio and Powell, 1983; Meyer and Rowan, 1977). One strand of institutional theory called the world society approach provides an application of this argument at the global level of analysis. Such research posits that the universalistic and rationalized models lead to cross-national policy convergence across a wide range of issue areas as countries aspire to signify their commitment to common norms (Meyer et al., 1997). This literature is viewed as a part of the larger diffusion literature that brings various mechanisms into focus whereby national policies become interdependent (Dobbin et al., 2007). Among these are coercion, emulation, learning, and competition (Braun and Gilardi, 2006; Simmons et al., 2006) which correspond roughly to processes of isomorphism in institutional theory (DiMaggio and Powell, 1983), although theories of diffusion differ from

institutional theory in that they use the term emulation when referring to normative isomorphism, and subclassify mimetic isomorphism as learning or competition. Notably, a common thread throughout all three perspectives (i.e., institutional theory, the world society approach, and theories of diffusion) is viewing policy choices as the product of external scripts and standards rather than the exigencies of the contexts within which institutionalized systems are implemented.

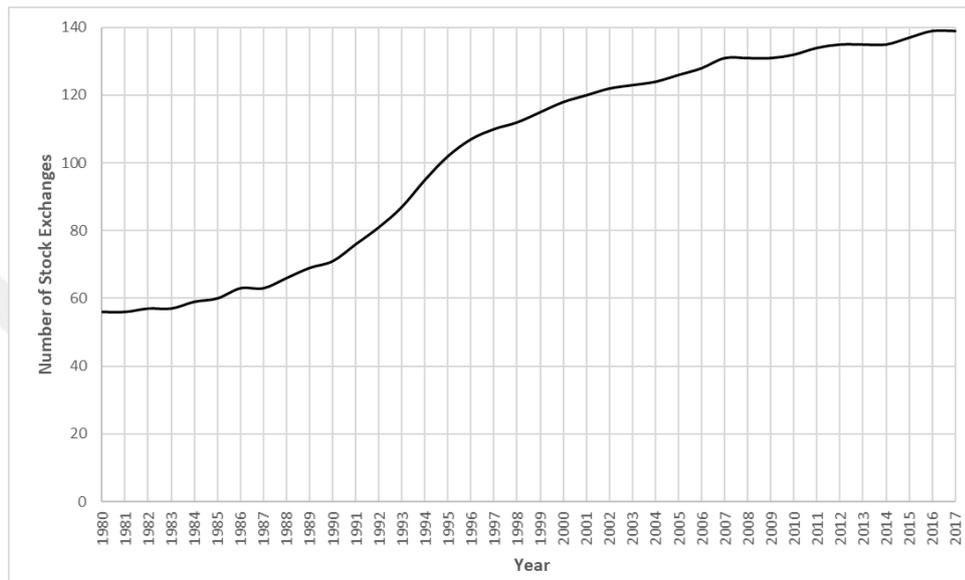


Figure 3.1. Number of stock exchanges from 1980 to 2017

While institutional theories of conformity offer important insights into contagious policy changes, the same viewpoints largely exclude consideration of local variations. As a matter of fact, despite a wave of market-oriented reforms in the post-1980 period, prior studies show in contexts such as public-sector downsizing (Lee and Strang, 2006) and corporate and capital taxation (Swank, 2006) that there is substantial heterogeneity in the national incorporation of the programs espoused by the neoliberal order. Stock exchanges seem to have followed a similar pattern of evolution. Experiencing a departure from the global trend, there were still 54 countries in the world without a stock exchange as of 2017. This is supportive of a notable body of work premised on the assumption that domestic settings are not necessarily constrained by international influences (Boone and Péli, 2016; Lenschow, Liefferink, and Veenman, 2005). Even when countries come to undertake liberalizing reforms, cross-national differences remain in the operational sphere (see Fourcade-Gourinchas and Babb, 2002). For instance, stock markets around the world display varying levels of performance, regardless of the measure of financial development used (Roe

and Siegel, 2011). There is also empirical evidence that international factors interact with internal factors to affect a policy's adoption or implementation (e.g., True and Mintrom, 2001; Zelner, Henisz, and Holburn, 2009). As a result, the focus on macro-level mechanisms needs to be complemented with analyses of the impact of local conditions on the introduction and implementation of diffusing policies.

The state has particular control over arrangements for establishing and developing stock exchanges despite the fact that its power to affect financial policy and development is likely to be weakened by outside influences. One of the state's major roles in both regards is making legislative changes. To illustrate, the following excerpt conveys information about legal action through which the initial exchange was opened in Mauritius:

The Stock Exchange of Mauritius Ltd (SEM) was incorporated in Mauritius on March 30, 1989 under the Stock Exchange Act 1988, as a private limited company responsible for the operation and promotion of an efficient and regulated securities market in Mauritius, and became a public company on 06 October 2008 (<https://www.stockexchangeofmauritius.com/about-us/sem-at-a-glance>).

Following new establishments, states make further decisions that affect the performance levels of stock markets. For instance, legal reforms aimed to protect the interests of investors would help stimulate financial development. To illustrate, the following account specifies equity market liberalization events for Peru:

In 1991, repatriation of capital, income, and dividends were liberalized. In 1992, under the Private Sector Guarantee Regime, foreign investors were guaranteed non-discriminatory treatment. The stock market was 100% opened except for banks, which had a foreign portfolio investment limit of 15% of total shares outstanding. In 1993, shares of banks, insurance companies, and pension fund management companies became freely available (Kaminsky and Schmukler, 2003, p. 45).

In addition to taking legislative initiatives, states create a constellation of institutions necessary to produce stable markets (Fligstein, 1996). As Morgan (2010) succinctly puts it, states also exert considerable influence over the sites of market activity, the objects of exchange, the money supply, and the rules of competition. In short, states provide the necessary infrastructure of the marketplace and enforce norms of appropriate behavior. Remarkably, however, they differ with respect to their capacities for intervention (Ring et

al., 2005). Thus, a proper understanding of the relationship between states and economic activity requires consideration of the range of domestic institutional arrangements and political responses (O’Riain, 2000).

This study highlights the need for a more state-centered analysis of alternative policy courses. While previous work sheds light on the determinants of neoliberal policies, such research has some limitations. First, diffusion studies that incorporate local characteristics often sidestep discussions of the various attributes of the state. Rather, there is a tendency to study a limited set of standard variables such as the political ideology of the government (e.g., Henisz et al., 2005; Weber et al., 2009) and macroeconomic performance (e.g., Lee and Strang, 2006; Polillo and Guillén, 2005). Second, the customary focus on the adoption of policies amounts to a neglect of the implementation processes (e.g., Brooks, 2005; True and Mintrom, 2001). There is consequently a lack of attention to compliance dynamics in general and the factors contributing to the gap between policy objectives and actual performance in particular. Third, there has been little research to date on the experiences of a diverse set of national contexts. Instead, studies of policy diffusion seek to understand the spread of practices in either developing (e.g., Weber et al., 2009) or developed economies (e.g., Swank, 2006). These shortcomings clearly suggest some fruitful areas of inquiry. Most obviously, even though the diffusion literature has gained an appreciation of sources of variation in neoliberal transition across countries, such work can be usefully extended by attending to the critical role of the state in policy orientations and outcomes. Moreover, a richer understanding of reform attempts would call for an evaluation of policy effectiveness in addition to the estimation of the probability of adoption. Lastly, by combining insights from a wide range of locations, institutional researchers can enhance theoretical relevance.

I aim to contribute to the literature by investigating the relative importance of the state as a potential source of policy differences (in both formulation and implementation stages) and by devoting attention to developed, developing, and underdeveloped countries in tandem. Specifically, the present study examines the effects of three salient features of the state (i.e., autonomy, capacity, and goals) on the formation and development of stock markets. My main assumption is that the nation-state, measured on multiple dimensions, can interfere with the global diffusion processes. Moreover, I suggest that each of these aspects of the state holds distinct implications for policy choices and outcomes. This work most closely relates to that of Weber et al. (2009) in the world society literature in identifying the determinants of the creation and vibrancy of stock exchanges, but I move beyond historical

domestic institutions and economic indicators to recognize the state as a fundamental component of national settings with different levels of development. It also relates to many more studies in various other literatures such as law and finance theory and the political economy of finance in that it focuses on the role of state-level variables in deriving financial outcomes, although I view legal and political factors as complementary rather than incompatible. The novelty here is that I integrate insights from adjacent disciplines to explore the dynamics of policy adoption and implementation in the institutions-finance nexus.

In the following sub-sections, I develop a number of hypotheses about the direct and indirect effects of the three dimensions of the state on stock exchange adoption and development. Meanwhile, a major research task will be to avoid the four state-related problems (i.e., lack of conceptual precision, inattention to multidimensionality, neglect of theoretical mechanisms, and underspecified boundary conditions) argued to be plaguing institutional theory.

3.3.1. State Autonomy and Stock Exchanges

An autonomous organization is considered to be free from external controls in matters of decision making and governance (Carruthers, 1994). Along this line, state autonomy refers to the potential to “formulate and pursue goals that are not simply reflective of the demands or interests of social groups, classes, or society” (Skocpol, 1985, p. 9). Such a view retains the distinction between state and society while simultaneously emphasizing that public actors are deemed to focus on their own issues of concern as opposed to those of private actors. Two logics drive research in this tradition. On the one hand, autonomous state actions are expected to coincide with the general interests of society because officials seek to “gain popular support and ward off private pressures” (Nordlinger, Lowi, and Fabbrini, 1988, p. 882). On the other hand, a belief in the potential autonomy of state organizations implies that “the extent to which they *actually* are autonomous, and to what effect, varies from case to case” (Skocpol, 1979, p. 29-30, emphasis in original). At issue, then, is the possibility that various interest groups will capture the state apparatus to impose their own preferences on political patterns and processes (Amenta, 2003).

Institutional theory supports the idea that state policies and actions become vulnerable to the influence of societal forces. Within this framework, the weakening of autonomous

state power is largely triggered by organizational participation in the regulatory landscape (see Chapter 2 for a review). Notably, early institutional insights thought of as overly concerned with isomorphic compliance, too, indicate that organizations not only adapt to institutional contexts but also actively shape those environments by attempting to build their goals and procedures into the rules of legislative and judicial authorities (Meyer and Rowan, 1977). Following the lead of the pioneering researchers, a series of studies later propose that organizational responses to institutional pressures and expectations vary from passive and conforming to active and resistant, and the more proactive the political strategies, the more likely are organizations to shape public policy (Oliver, 1991; Oliver and Holzinger, 2008). More recently, the burgeoning literature on institutional work further suggests that it is especially the incumbent actors that seek to navigate the political arena for their own interests (Micelotta and Washington, 2013; Rainelli Weiss and Huault, 2016). In pursuit of asymmetrical advantages, these dominant players draw on their relationships with political decision-makers, thereby creating less favorable conditions for other societal actors (Frynas, Mellahi, and Pigman, 2006; McWilliams, Van Fleet, and Cory, 2002).

A large body of work indicates that financial markets affect the domestic economy in a variety of ways (see Levine, 1997 for a review of this line of research). Most significantly, evidence shows that the emergence of stock markets promotes long-run growth by increasing firm efficiency and raising the fraction of resources invested in firms (Levine, 1991). As noted above, institutional thinking presumes that autonomous state actions contribute to the public good, even though preferences are developed within the political system (March and Olsen, 1984). To the extent that economic development is a socially desirable outcome, autonomously acting states can be expected to facilitate the opening of stock exchanges. However, scholars also point out that institutional inhabitants benefiting from the existing social arrangements take action when faced with change efforts (Seo and Creed, 2002). Specifically, established organizations within a field are inclined to perceive the adoption of novel concepts or practices as a potential threat to their privileged positions and thus defend the status quo during a diffusion process (Höllerer, 2013). In the absence of stock markets, the incumbent firms can raise finance from relational networks, whereas others become subject to credit constraints and remain smaller. Less competition within an industry maximizes embedded actors' profits, which, in turn, fuels their opposition to the erosion of economic power due to the development of market-based systems. To the extent that the political connections of elite groups impede state autonomy, financial policy can be expected

to be in line with the preferences of incumbents and prohibit the formation of stock markets. I therefore formulate the following hypothesis:

Hypothesis 1a: A higher degree of state autonomy increases the likelihood of stock exchange adoption by a given country.

Cross-country studies linking finance and economic activity also suggest a positive relationship between stock market development and long-run growth (e.g., Levine and Zervos, 1996). A comprehensive survey of this literature posits that financial development affects economic growth by alleviating financial constraints, enhancing risk-sharing, promoting liquidity, and disciplining borrowers (Fernández and Tamayo, 2017). Again, the autonomous state as a promoter of collective benefits can be expected to support well-functioning stock markets by providing legal protections for investors and sanctions for violators of the law as well as providing an environment which maintains investor confidence in the judicial system about effective enforcement. On the other hand, dominant groups might show a self-serving determination to ensure continuity of special advantages via the mobilization of ties to officeholders. Rajan and Zingales (2003) provide evidence of the influence of private interests on financial sector performance. Their theory holds that incumbents favor financial repression rather than direct-entry restrictions because it is easier to limit competition and extract economic rents in underdeveloped financial markets (Erosa and Cabrillana, 2008). Thus, the presence of political relationships makes it difficult for countries to implement institutional reforms such as the opening of capital markets to foreign investors as long as the benefits of close connections outweigh the anticipated gains from proposed policies to those who obtain preferential financing (Leuz and Oberholzer-Gee, 2006). Moreover, personal connections matter for economic outcomes not only in emerging and developing markets but also in countries with stronger institutions, especially during times of crisis (Acemoglu, Johnson, Kermani, Kwak, and Mitton, 2016). As a result, a minimum degree of state autonomy is required to counterbalance the political power of elites as in the case of new establishments. The decision-makers can then undertake various policy changes that are likely to enhance the performance of stock markets. I therefore hypothesize:

Hypothesis 1b: A higher degree of state autonomy is positively associated with stock exchange development in a given country.

3.3.2. State Capacity and Stock Exchanges

State capacity refers to the set of functions necessary to carry out policies, or more generally, to the ability of states to “get things done” (Lindvall and Teorell, 2016, p. 5). According to early influential work, finances, territorial integrity, and staffing provide the basic underpinnings of the state’s overall ability to pursue policy goals (Skocpol, 1985). Put simply, different types of resources are required for effective state action. Given this theoretical framework, there has been widespread research interest in extractive, coercive, and administrative dimensions of state capacity that depend on the collection of revenues, the maintenance of order, and the employment of a professionalized bureaucracy, respectively (Cingolani, Thomsson, and de Crombrughe, 2015). Thus, while the literature has acknowledged the existence of multiple dimensions of state capacity, Hanson and Sigman (2013), Hendrix (2010), and others show that analytically distinct aspects of the underlying concept are highly correlated. From this perspective, different state functions are mutually reinforcing as, for instance, the administrative and coercive dimensions of state capacity help collect revenues, and financial extraction, in turn, facilitates the development of the bureaucratic and coercive apparatuses (Hanson, 2018; Wang and Xu, 2018). Often, more significant than the discrepancies between particular subtypes are those between political decisions and subsequent practices in the face of existing state capacities (see Skocpol and Finegold, 1982).

State capacity appears in the institutional literature in a particularly straightforward fashion as “capacity for action” which indicates the purposeful use of power by the government (Reay and Hinings, 2005). In many cases, the ability to assert authority in this manner creates top-down pressures for compliance activities (e.g., Short and Toffel, 2010), legitimacy building (e.g., Marquis and Qian, 2014), or changes of various types such as institutional transformation of organizational fields (e.g., Hinings et al., 2003). What the review of the literature in the previous chapter highlights, however, is that institutional theory addresses possible effects of state capacity inasmuch as regulatory and legal functions of the state take precedence over others. In doing so, the research allows comparison of policy objectives and implementation outcomes. A major implication of this view is that high administrative capacity leads to the alignment of commitments and practices, and this is associated with positive outcomes such as the heterogeneity of firms entering new sectors (Sine, Haveman, and Tolbert, 2005). By the same token, low administrative capacity renders state policies ineffective, and this results in undesirable consequences such as market

suppression (Vermeulen et al., 2007). Nonetheless, some institutional analyses draw attention to different aspects of state capacity, including extractive capacity (Slangen et al., 2017) and cultural capacity (Kalev et al., 2008). Consideration of different indicators of state capacity by these exceptions opens up possibilities for portraying the concept as a multi-dimensional phenomenon by which government institutions pursue policies.

Several streams of research examine the linkages between state capacity and development (see Cingolani, 2013 for a review of this line of research). Although studies represent different notions of state capacity when explaining variation in social, political, and economic outcomes across countries, their findings consistently suggest that capable states are more likely to devise effective development policies, while lack of capacity has deleterious effects on development. In one area of inquiry, state capacity appears to be an important determinant of social outcomes such as basic health standards (Cingolani et al., 2015) and popular well-being (Cronert and Hadenius, 2021). Adopting an alternative approach, studies of intrastate conflict show that state incapacity is positively correlated with the risk of civil war onset (Sobek, 2010) as financially, bureaucratically, and militarily weak states favor insurgency (Fearon and Laitin, 2003). In addition to social and political outcomes, a large body of work investigates the empirical relationship between state capacity and economic performance. Starting with Evans and Rauch's (1999) seminal article identifying a strong connection between bureaucratic structures and economic growth, this research recognizes the importance of different types of state capacity for economic development as measured by a range of indicators, including income per worker (Dincecco and Prado, 2012) and growth in capital stock and productivity (Hanson, 2014).

Overall, then, a substantial body of evidence suggests that fiscal, military, and organizational strengths enhance the state's ability to achieve various types of development goals. As discussed earlier, the formation of stock markets offers a path toward economic development. Thus, there is strong reason to believe that exchanges would provide one of the means by which state capacity fosters economic growth over time. This prediction underscores that stock markets are more likely to emerge when states have greater capacity. A compelling reason for this expectation is that the resources that a high-capacity state has at its disposal facilitate efforts to cultivate market-supporting institutional arrangements. More precisely, territorial control, along with stable revenues and bureaucratic quality, enable infrastructural development needed for the creation of stock exchanges and future macroeconomic outcomes. When superior access to such resources manifests itself in the

design of the legal system, the prospects of participation in stock market activity are greatly increased through signals of the state's commitment to investor protection and contract enforcement. In a context such as this, an effective system of regulation is a mechanism to ensure that the parties build institutional-based trust where relationships are not founded on interaction-based trust (Bachmann and Inkpen, 2011). Often, a weak state lacks a legal framework for safeguarding the rights of potential investors, and the resources to put structures in place to breed trust between strangers are also limited. In some cases, as in Afghanistan and Yemen, the inability to ensure domestic security lies behind diminished state capacity, heralding a shift in policy direction away from the enforceability of agreements and market transactions conducted at arm's length. So, challenges to national sovereignty may partially explain the absence of stock markets in such countries. To the extent that the institutional conditions are conducive to the opening of stock exchanges, the decision-makers can be expected to formulate a policy response accordingly. This line of argumentation leads to following hypothesis:

Hypothesis 2a: A higher degree of state capacity increases the likelihood of stock exchange adoption by a given country.

As noted above, state interventions do not always result in intended outcomes. Although some research streams attribute noncompliance to the lack of incentives to implement policy decisions, scholarly endeavors related to state capacity focus on an inability to do so. For instance, the relevant literature shows that poor human rights conditions as well as treaty violations stem from the weakness of states rather than their deliberate choices (Cole, 2015; Englehart, 2009). The same is true of the viability of the financial sector. In a series of studies, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997, 1998) provide evidence that countries with poor investor protections limit external financing opportunities for firms and thus have smaller and narrower markets. Similarly, Johnson, Boone, Breach, and Friedman (2000) emphasize the importance of minority shareholder rights in explaining the extent of exchange rate depreciations and stock market declines across countries. Indeed, it may even be possible for markets to emerge in the short-term absence of protective legislation if there are functional substitutes such as private self-regulatory institutions, but they cannot grow to their full potential in an unaccommodating legal regime (Coffee, 2001). More importantly, it is not the existence of regulations per se, but rather their proper enforcement, that stimulates the development of markets (Modigliani and Perotti, 1997). For instance, the effectiveness of judicial enforcement in terms of the

length of trials and the number of civil suits pending determines credit market performance (Jappelli, Pagano, and Bianco, 2005). By the same token, states' access to the set of tools for successful implementation of the law evokes positive responses from stock markets such as a reduction in the cost of equity (Bhattacharya and Daouk, 2002) and an increase in the rate of return (Lombardo and Pagano, 1999). Otherwise, investor distrust in state regulation contributes to market avoidance (i.e., the tendency to keep savings in cash) (Spicer and Okhmatovskiy, 2015). Under conditions un conducive to investment, diffuse ownership becomes less optimal and the potential benefits of policy reforms are reduced (see Stulz, 2005). Taken together, these considerations suggest the following hypothesis:

Hypothesis 2b: A higher degree of state capacity is positively associated with stock exchange development in a given country.

3.3.3. State Goals and Stock Exchanges

State goals could most easily be identified with the objects of political action. From this point of view, the predominant focus is on public and private interests in the works of political scientists and economists alike. Policies purported to be in the public interest have positive impacts on some or all of the critical dimensions of the lives of individuals making up the relevant public (Long, 1990). Conversely, special-interest policies confer benefits to organized groups at the expense of other members of society, reflecting the ability of the former to utilize the powers of the state to further their own ends (Stigler, 1971). Institutionalists engaged in investigations of the distinction between “public” and “private” approach the issue from two angles. In one formulation of this agenda, the intended beneficiaries of policies are indirectly addressed by attending to different types of states. Such categories as “socialist”, “capitalist”, and “predatory” reflect the overriding concern of state agents and provide insights into whose interests would be advanced. Perhaps the most obvious example is the welfare state that aims to provide social and economic benefits to the citizenry as a whole (Carney and Witt, 2012). In another, more common view, state institutions are accepted as benevolent promoters of the common good and self-interested behavior is confined to individual actors within the political system (see Chapter 2 for a review). Despite the relative merits of both approaches, there are some problems with the conceptualization of state goals from the perspective of institutional theory. In the former case, scholars mostly fail to present a long-term picture of the orientations of states since

countries shift to alternative models over time. For instance, Evans (1989) notes the transformation of the East Asian states from predatory to developmental. The developmental state itself is destined to change as the goal of rapid economic growth has a terminable existence and needs to be replaced once accomplished (Kim, 1997, p. 42-45). In the latter case, scholars fudge the realities of different modes of governance that have a strong bias towards some subset of a given polity. In fact, even states that appear to be acting in the common good may simultaneously cater to the particularistic demands of elite groups (see, for example, Kang, 2002 for an analysis of South Korea). This suggests a need to extend the study of private goals beyond corruption and rent-seeking at the micro level.

In this light, the notion of regime can be expected to play a more decisive role in providing policy directions for countries. As a system of political organization, “a regime determines who has access to political power, and how those who are in power deal with those who are not” (Fishman, 1990, p. 428). In principle, a change in political leadership could bring about a change in emphasis from, say, developmental to welfare, state arrangements. Successive governments, however, still operate within the purview of the existing regime. Given that the regime sets the conditions and limitations under which the power of the state is exercised (Lawson, 1993), regime type might matter for policy choices. Notably, while political regimes are distinguished using a variety of classification schemes (for a review of regime typologies, see Sirowy and Inkeles, 1990, Table 5), for simplicity, this discussion rests on the distinction between democratic and nondemocratic regimes. For many observers, what sets apart the former from the latter is essentially the maintenance of periodic and competitive elections for the chief executive and legislative offices (Alvarez, Cheibub, Limongi, and Przeworski, 1996). By their very nature, then, democracies generally pursue pro-majority policies which could be seen as a reflection of voters’ preferences, whereas nondemocracies have an inbuilt tendency to represent the interests of a privileged subgroup of the population (*aka* “the elite”) (Acemoglu and Robinson, 2006, p. 16-22). The recognition of the possibility of movements from one form of rule toward another notwithstanding, regime changes are often precipitated by a complex interplay between domestic and international forces (Teorell, 2010, p. 141-144) and, as a result, political agendas developed by the regimes may prove relatively long-lasting. Moreover, it becomes possible to take less aggregative political systems into account by turning attention to regimes. Therefore, the framework proposed here is better suited to gain a view of state goals than others.

One of the ways democratic regimes seek to enhance the general public good is by assuring “positive welfare outcomes” (Moon and Dixon, 1985, p. 690). Recent work points out that democracy is closely related to greater life expectancy (Besley and Kudamatsu, 2006), lower infant mortality (McGuire, 2013), and various other public service indicators such as higher rates of school enrollment and increased access to safe drinking water (Lake and Baum, 2001). When it comes to economic performance, though, theoretical perspectives embody different sets of assumptions about the implications of different regimes, and early reviews of the effect of democracy on economic growth report inconclusive results (Przeworski and Limongi, 1993; Sirowy and Inkeles, 1990). However, later researchers help account for the mixed findings of the earlier literature. In a meta-analysis, Doucouliagos and Ulubaşoğlu (2008) conclude that democracy does indeed have a zero direct effect on economic growth, whereas it has significant indirect effects through human capital accumulation, inflation, political instability, and economic freedom. Other scholars underscore the role of context, through establishing that it is via the provision of health care and education that democratic states improve growth in poor and nonpoor countries (Baum and Lake, 2003), or via economic liberalization in transition countries (Fidrmuc, 2003). In addition to such indirect channels, in institutional explanations of the economic development of democratic countries, there are also broader social conditions that generate the contrasting experiences of different political regimes. As such, the same set of institutions that sustain the democratic regime are also required for the protection of individual rights conducive to economic development (Clague, Keefer, Knack, and Olson, 1996; Olson, 1993). In a sense, then, democracy can be thought of as a “meta-institution” for building market-supporting institutions, including property rights and institutions of conflict management, that underpin prosperous economies (Rodrik, 2000). Put differently, the developmental (dis)advantage of (non)democracies lies in the (absence) presence of transparency and accountability in such systems which enable leaders to (ignore) conform to the wishes of the electorate (Siegle, Weinstein, and Halperin, 2004). This implies that more democratic politicians differ from their less democratic counterparts in that their institutional environments impose severe constraints on exploiting the monopoly powers of the state (Lake and Baum, 2001).

On the whole, then, evidence that democracies tend to serve the interests of the bulk of the population or that nondemocracies are more beneficial to certain segments of the population reflects political procedures peculiar to each type of regime. To reiterate, rulers face different institutional mechanisms and incentive structures under different regimes,

affecting the way they proceed in their affairs (Clague et al., 1996). Thus, even though the concept of public interest is of particular importance for shaping government actions in democracies, officials are more likely to be motivated by self-interest in popular support and reelection than by altruism (Downs, 1962). These considerations probe the main sources of variation in economic outcomes across regimes. Further, while empirical analyses have contributed to our understanding of what acts as a catalyst for economic progress in more representative systems, some analysts propose alternative means of illustrating the positive effects of democratic characteristics on the economy. For instance, Girma and Shortland (2008, p. 574) suggest that financial sector policies can constitute “another such ‘channel variable’ through which democracy raises economic performance”. This prediction is consistent with the findings of the literature on finance and growth discussed above. So, for democracies (especially newly emerging ones), the formation of stock markets seems a good starting point for developing economically in the future. In keeping with the available ideas about democracy and the public interest, these regimes are more likely to favor the pursuit of this goal for two reasons. First, the institutional parameters of democratic states would induce political actors to become involved in such an effort. To this end, the rule of law and the judicial system can be tapped to strengthen trust in external finance and to foster economic activity. Second, self-serving agendas of democratic leaders would have been already aligned to protecting the interests of the majority or, in this case, providing more equal access to funds, in order to enhance their reelection prospects. In sum, prevailing structures that place few restrictions on capital flows and possible motives of officeholders create an institutional environment in which the opening of stock exchanges can be expected to be given policy priority. I therefore hypothesize:

Hypothesis 3a: A higher degree of democracy increases the likelihood of stock exchange adoption by a given country.

Similar to their establishment, the development of financial markets can also be explored with reference to broad differences in rules and norms of political conduct as well as in incentives for such expansion across regimes. Proponents of the political institutions view argue that public officials may be tempted to curtail the extent of credit provided to the private sector unless there are limits on the government’s authority and discretion. The diversion of funds to political purposes discourages private investors from seeking a tightening of conditions for the transparency and enforceability of their property rights (due to expropriation risks), which, in turn, stunts the growth of banks and securities markets

(Haber, North, and Weingast, 2008). On this point, the preceding analysis suggests that democratic governments face serious obstacles to ensuring their own survival at the expense of financial development, whereas other forms of administration are bound to pursue short-term goals and limit the size and breadth of their markets. Some rulers become an impediment to functional financial systems in general and exchange trading in particular not merely for continuance in office but also for furthering the interests of the members of the elite. A small group of incumbents can exercise control over political decisions to block financial development, especially when governments are less representative and accountable to the public (Girma and Shortland, 2008). In fact, empirical studies show that transitions to democracy provide a boost for financial development by virtue of a series of institutional reforms aimed at weakening the ability of elite actors to oppose pro-investor policies and ensuring the protection of property rights, among other things (Ghardallou, 2016; Huang, 2010). Thus, even if less constrained regimes prove unexpectedly successful in establishing stock exchanges, they are highly unlikely to place emphasis on financial performance. According to this reasoning, I predict that:

Hypothesis 3b: A higher degree of democracy is positively associated with stock exchange development in a given country.

3.3.4. Interactive Effects of State Capacity and State Goals on Stock Exchanges

While state capacity provides the means to pursue policy goals, a regime shapes the contours of the mobilization of such resources. Therefore, state capacity may result in positive outcomes inasmuch as a country's political regime gives governmental actors motivation for the fulfilment of public demands. Accordingly, the earlier contention that a high-capacity state appears to be far more open to the formation of stock markets might be re-examined in light of regime type. The main point here is that most states consolidate power; in fact, state capacity has been found to be higher in nondemocratic regimes than in partial democracies (Bäck and Hadenius, 2008; Carbone and Memoli, 2015). Yet, nondemocracies need not share a common agenda with fully democratic countries in utilizing important sources of strength to establish an overarching policy framework. On the contrary, these regimes require state capacities for different purposes. For instance, effective reach of the state apparatus across the country, which is a central dimension of coercive capacity, has the potential to turn into an instrument of repression in the hands of autocratic

rulers (Way and Levitsky, 2006). In other words, the same mechanism that incentivizes democratic leaders to deliver public goods to a substantial proportion of the population furnishes nondemocratic governments with what ensures their stability. Following from this, stock exchanges are most likely to emerge when state capacity is accompanied by democratic institutions, particularly those that promote openness and transparency. One such institution is political participation that allows individuals and groups to become involved in policy debates and voice their opinions on critical issues at stake (see, for example, Wampler and Touchton, 2019 on participatory budgeting). Drawing new actors to the political scene not only leads to a free flow of ideas but also works in conjunction with elections in preference aggregation. Since majorities tend to favor easy access to funds, their input on this issue would be conducive to the use of policy instruments for the adoption of market-based systems. Another example concerns fundamental democratic rights. For instance, it is thanks to freedom of the press that significant focus would be directed towards preferential treatment of elites or financial problems. Freedom of association would similarly facilitate the transfer of information by means of campaigns against unequal distribution of resources, reports on the impact of stock exchanges on future economic prosperity, and the like. All in all, democratic processes press governments to use power in the interest of all of those who demand external funds. This is why the interaction between state capacity and democracy predicts the opening of stock exchanges:

Hypothesis 4a: The effect of state capacity on the likelihood of stock exchange adoption by a given country increases with a higher degree of democracy.

It is also possible to scrutinize the effects of regime type on the relationship between state capacity and the expansion of markets. As discussed earlier, a high-capacity state is staffed by competent officials who have the right tools to enforce rules, and this lays the basis for the assertion that state capacity may dovetail with what is good for the economy. However, the core of the political institutions view is the idea that credit flows are sacrificed to the imperative of survival unless there are limits on discretionary powers of political actors. It follows that democratic states happen to be embedded in institutional arrangements by which state capacity is geared towards shared ends. Above all, the independence and impartiality of the judiciary guarantees the security of property and contract rights and thus retains the public's confidence in the functioning of the system (Clague et al., 1996; Olson, 1993). Moreover, democratic checks and controls provide safeguards against misuse of power as well as space for making policy choices beneficial to the public at large. For

instance, the so-called “steering and control from below” allows citizens to avail themselves of the opportunity to direct and review the performance of the administrative apparatus (Bäck and Hadenius, 2008). Political competition can be identified as another mechanism for curbing malfeasance and facilitating the optimal allocation of resources. This is because opposition parties continuously monitor the government’s actions and attempt to redress situations of economic disadvantage. In doing so, challengers not only address social inclusion issues but also attract electoral support. Under the shadow of the masses and warring groups, democratic governments hold subnational units accountable for potential abuses of power in the process of delivery of public goods and ascertain the arrangements needed for steady progress (Touchton, Sugiyama, and Wampler, 2017). That is to say, democratic institutions leave little room for improper conduct and thus bolster markets. In nondemocratic regimes, by contrast, rulers have the power to overrule the courts and withstand scrutiny and opposition, and the resulting uncertainty is detrimental to the development of financial markets. Taken together, these considerations suggest the following hypothesis:

Hypothesis 4b: The effect of state capacity on the likelihood of stock exchange development in a given country increases with a higher degree of democracy.

3.3.5. The Mediation Effect of State Autonomy on the Relationship between State Capacity and Stock Exchanges

While state autonomy ensures that policy decisions are free of interference from other actors, state capacity refers to the ability to attain intended goals. For the reasons set out above, state capacity in itself can be directly linked to stock exchange adoption. An alternative view, however, exists suggesting state autonomy is a mechanism through which state capacity contributes to policy formation. Specifically, research into the effects of governments on managerial actions provides important insights into the nature of the autonomy-capacity relationship. The premise on which the theorists from this tradition work is that the incapability of governments to create an infrastructure for conducting impersonal transactions gives rise to the dependence of organizations on personal relationships with the powerful, thus allowing more scope for those who forge political connections to influence government policy (Pearce, 2001; Pearce, Xin, Xu, and Rao, 2011). Such a position is backed up, for the most part, with empirical evidence that those with good *guanxi* with governmental

authorities are those who take advantage of the instability and weakness of the legal system in China (Huang et al., 2017; Park and Luo, 2001; Xin and Pearce, 1996). If impaired functioning of the state apparatus increases vulnerability to outside influence, the argument goes, dominant groups will behave opportunistically and disapprove of the use of policy instruments for promoting overall economic welfare, through the opening of stock exchanges and the like, in order to ensure they retain certain privileges. It follows:

Hypothesis 5a: A higher degree of state capacity increases state autonomy and, hence, the likelihood of stock exchange adoption by a given country.

Under some conditions, politically connected incumbents prefer an inefficient system instead of simply opposing its establishment. These are not cases of whether the adoption of policies is being impeded by lack of state capacity, reinforced by partisan interests. Rather, it is the implementation of the newly formulated policies at stake. As described by Rajan and Zingales (2003), dominant groups tend to favor neither tighter regulations nor stricter enforcement and try to prevent financial development, as changes in the allocation of resources can significantly reduce their rent flows. Plans to reform the law meet with opposition from incumbent entrepreneurs, especially when they stand to suffer huge financial losses after an improvement in legal protections for outside investors (Shleifer and Wolfenzon, 2002). So as to maintain their privileged positions, rent-seeking organizations operating under poorly implemented legislation exercise political influence, which lead to unfavorable conditions for non-connected transactors (Modigliani and Perotti, 1997). Based on failure to increase state capacity, it may be possible to document mediational effects of state autonomy on financial underdevelopment. By the same token, effective state action would help build arm's length relationships and enable the expansion of markets. According to this logic, I specify the following hypothesis:

Hypothesis 5b: A higher degree of state capacity increases state autonomy and hence is positively associated with stock exchange development in a given country.

3.4. Summary

I use my systematic review of institutional research on the concept of the state as a foundation for undertaking a research project aimed at tackling a number of key issues that do not augur well for the future of the field. The diffusion literature serves the specific

purpose of extending the understanding of the state in relation to policy adoption and implementation. In this vein, predictions about state-level phenomena become empirically testable by a cross-national analysis of the evolution of stock exchanges. Below, I provide a summary of the hypotheses about the effects of three salient features of the states and their interrelationships and interactions on financial policy and development. With this brief sketch of the main lines of inquiry, I underscore that I (a) increase conceptual precision by offering definitions of each dimension; (b) support a multidimensional conception of the state by capturing important dynamics in interrelated and interactive ways; (c) allow space for the recognition of causal processes by specifying the mechanisms linking state-related constructs and alternative policy courses; and (d) draw attention to the scope conditions of the hypothesized effects by exploring the changing patterns of policy making and implementation vis-à-vis nation-states.

- (i) State autonomy, as defined by Skocpol (1985) as the ability to make decisions and take action independently of societal forces, is expected to increase the likelihood that a given country will establish stock exchanges and facilitate their operation (hypotheses 1a and 1b). The state's commitment to market institutions and activity is likely to be facilitated by the successful use of political power to thwart attempts by the incumbent firms to stand in the way of the provision of public goods.
- (ii) State capacity, as defined by Skocpol (1985) as the ability to pursue policy goals, is expected to increase the likelihood that a given country will establish stock exchanges and facilitate their operation (hypotheses 2a and 2b). In principle, a central mechanism leading to such changes could be the mobilization of state resources (i.e., tax revenues, territorial control, and a bureaucratic apparatus) for the required infrastructural improvements and effective enforcement.
- (iii) Democracy, as defined by Alvarez et al. (1996, p. 4) as "a regime in which some governmental offices are filled as a consequence of contested elections", is expected to increase the likelihood that a given country will establish stock exchanges and facilitate their operation (hypotheses 3a and 3b). A system of checks and balances on political power, in conjunction with the private incentives of democratic leaders, provides an alternative channel for these regimes to give priority to markets and exchanges.

- (iv) While state capacity constitutes aspects of what is required for pro-investor policies, regime type actually determines how available resources are deployed. The interaction between them means that the effect of state capacity on the likelihood that a given country will establish stock exchanges and facilitate their operation increases with a higher degree of democracy (hypotheses 4a and 4b). Openness, transparency, and accountability are three important cornerstones of the democratic process that promote the use of state power for market-oriented reforms.
- (v) While state autonomy gives policymakers the strength to avoid outside interferences, state capacity actually determines what can and cannot be achieved through available resources. The relationship between them takes the following form: state capacity → state autonomy → the likelihood that a given country will establish stock exchanges and facilitate their operation (through encouraging arm's length relationships) (hypotheses 5a and 5b).

4. METHODOLOGY

Before proceeding to carry out an empirical test of the impacts of the states on stock markets, this chapter details sampling and data collection processes, specifies variables to be involved, and describes statistical analyses to be employed. To address a weakness apparent in the earlier literature, the samples under study span an extended period and expand the number of countries. Moreover, this work is intended to give a comprehensive account of a policy's adoption and implementation, with a dual focus on domestic and international forces.

4.1. Sample

I build a sampling frame consisting of all 193 member states of the United Nations. The observation period begins in 1980, or when a country becomes independent, if this is achieved after 1980, and ends in 2017. The year 1980 is a good starting point for analyses of stock exchange adoption given that neoliberal economic policies proliferated rapidly in the post-1980 period (see Chapter 3 for an overview). Temporally bracketing the earlier stages sets a reasonable time frame within which stock exchanges have not only spread worldwide but also experienced a surge in activity (Wojcik, 2013). Additionally, in view of theoretical concerns, special circumstances prevailing in colonies and dependencies as well as the process of regional integration of national exchanges fall outside the scope of my inquiry. So, in sum, I, like Weber et al. (2009), eliminate countries with stock exchanges prior to 1980, countries where stock exchanges precede independence, and countries that merge their markets to consolidate trading activity in regions. Lastly, only those countries that exceed the population threshold of 250 000 in 1980 are retained. Microstates are omitted not just for data limitations but also for the relative unimportance attached to them in comparative analyses (Gleditsch and Ward, 1999). Indeed, as the impact of market trends is not felt uniformly across the world, and microstates have only limited resources with which to keep pace with changes in the global economy, only a few of them (i.e., Bahamas, Iceland, Maldives, Qatar, and Seychelles) have proved successful in establishing stock exchanges. Overall, this study is based on total samples of 82 to 92 countries where stock markets have emerged and 30 to 40 countries where stock markets have become operational. The sample sizes of both the first and second groups tend to change frequently as some countries become independent and meet the criteria for inclusion in the analysis within the timescale specified.

This is in addition to variations in the availability of data from year to year. Nonetheless, these lists have a noticeable advantage over alternative data sets in that they represent a wide cross-section of developed, developing, and underdeveloped nations over a period spanning nearly four decades.

4.2. Data

Drawing upon secondary sources such as published articles, online databases, and websites, I collect and collate information relating to the formation and expansion of stock markets, the key attributes of the states, and other variables that might affect observed phenomena. The resulting data on stock exchanges take two forms. First, time-to-event data are used for the testing of hypotheses for the effects of state-level variables on stock exchange adoption. Here, the outcome of interest is time (in years) until the establishment of a country's first stock exchange. For instance, as the period of observation begins in 1980 and the establishment of İstanbul Stock Exchange is in 1985, the time to event for Turkey is six years. Second, pooled time-series cross-sectional data are used for the testing of hypotheses for the effects of state-level variables on stock exchange development. Here, a couple of financial indicators are observed per country, per year to capture cross-national and over-time variation. In both cases, the unit of analysis is the country-year.

4.3. Variables

The three dimensions of the state represent the independent variables of interest. While these constructs can be operationalized in different ways (see Chapter 2 for approaches to the measurement of state-related variables in institutional research), I make use of indicators that are highly relevant for predicting both dependent variables (stock exchange adoption and development) and are considered to be comprehensive in scope and coverage. As for control variables, I take many factors such as economic development and world system position into account that might have some pertinence to the task at hand. Appendix 8.4 summarizes the descriptions and data sources of the variables being investigated. Note that the effects of independent and control variables are assessed with a time lag of one year (that is, they are observed at time $t - 1$).

4.3.1. Dependent Variables

The first dependent variable is *the hazard of stock exchange adoption* which is estimated as a country's instantaneous potential for experiencing the event of interest at time t , given that it has not occurred up to that time. For this, it is necessary to obtain time-to-founding by tracking the number of years until the time at which the initial exchange is founded in a given country. It is calculated for each country at risk of experiencing the event of interest in a given year. For instance, Bosnia and Herzegovina becomes at risk of establishing a stock exchange in 1992, when the country gains its independence, and drops out of the risk set as from 2001, when Sarajevo Stock Exchange is founded.

In order to specify the dates of establishment, I use Handbook of World Stock, Derivative and Commodity Exchanges (1998) as my primary source, but check official websites of stock markets in the case of incomplete information. Whenever English-language versions of websites are unavailable, I seek help from online translation services. It is evident in the collected data that the enactment of the relevant legislation and the launch of actual trading are usually within a year or two of one another. For the purposes of this study, I choose the dates of inauguration as an indicator of stock exchange adoption. Besides, in cases where stock exchanges had been established before independence, but were temporarily closed down or abolished for reasons of war, foreign occupation, etc., and then reestablished in the wake of independence, I code the first reactivation dates. I compile my own list due to the lack of uniform and systematic approaches to data entry in previous studies. Inconsistencies in coding seem to stem from a difference between researchers' conceptions of what marks the beginning of exchange trading (see Table 4.1 for some illustrative examples). As noted above, I assume that stock markets come into existence when states pass incorporation laws. Appendix 8.5 provides a complete list of the countries in the data set that have established stock exchanges and information about the dates of these events and their sources.

Listed domestic companies and *market capitalization* act as indicators of stock exchange development – the second dependent variable under study. These performance measures show the sizes of stock markets subsequent to their opening. While listed domestic companies capture the number of companies which have shares listed on an exchange, market capitalization indicates the total value of outstanding shares in an exchange. Each measure has its own strengths and weaknesses. So, while the number of listed domestic

companies is not useful as a tool to explain financial development in countries where few large companies' shares trade in an exchange, market capitalization of listed domestic companies may give the misleading impression that a myriad of investors participate in such countries' markets (Rajan and Zingales, 2003). Both indicators are used to ascertain the reliability of measures and assess the robustness of the results. I gather relevant data from 2017 World Development Indicators (WDI) database which includes internationally comparable information on states and markets.

Table 4.1. Stock exchange adoption judged on subjective criteria

Country	Weber et al. (2009)	Bhattacharya and Daouk (2002)	Own coding
Botswana	1994	1989	1994
Kazakhstan	1997	1997	1993
Mongolia	1992	1991	1991
Zambia	1995	1994	1993

4.3.2. Independent Variables

I use Staton, Linzer, Reenock, and Holsinger's (2019) measure of *judicial independence* as a proxy for state autonomy. This data set improves upon a multiple-indicator index of judicial independence created by Linzer and Staton (2015). The original model formulation is based on the power concept of *de facto* judicial independence whereby judges not only reach decisions independently but also exert sufficient influence over political actors to ensure compliance with those decisions. While combining eight selected indicators of judicial independence, Linzer and Staton (2015) also focus their attention on the pressing agenda of how to confront common problems experienced by judicial scholars and deal with, among other things, related patterns of measurement error and missing data observed in extant indicators. This new scale thus purports to present a more accurate portrayal of judicial independence than alternatives. In the updated version, the observation period has been extended to provide estimates of the latent variable for 200 countries from 1948 to 2015. Considering that the coupling of collectivities of officials with autonomous state action is theoretically preferred (Skocpol, 1985), and particular importance is attached

to bureaucracy in economic policy development (Carruthers, 1994), the choice of autonomy measure is more than just a matter of the availability of data. Measuring judicial independence accords with the concept of state autonomy that is based on the ability to formulate and pursue goals independently of societal forces. More specifically, it is reasonable to assume that independent judiciaries are the relevant constituent authorities who could provide one of the chief bases for stock markets by promoting conflict resolution in an impartial way, overturning discriminatory treatment of non-connected investors, etc.

I use Hanson and Sigman's (2020) measure to assess *state capacity*. This version expands on the coverage of the original (i.e., the 2013 data set) and spans the years 1960 to 2015. It is an ambitious work, with a number of refinements to conventional models and data for up to 163 countries. After careful measurement, a salient feature that has emerged from this project is that the interrelationships between analytically distinct aspects of state capacity complicate disaggregation in empirical analysis. Therefore, a compilation of 21 selected indicators related to extractive, coercive, and administrative dimensions of state capacity produces a general-purpose measure representing all three components. Researchers in various fields use this overall indicator of state capacity to examine its determinants and consequences (e.g., Cronert and Hadenius, 2021; Wang and Xu, 2018). In organizational institutionalism, Guillén and Capron (2016) also deem this measure appropriate for predicting the protection of minority shareholder rights and stock market development. In the context of the present study, it does appear that a composite measure like this would be preferable for the testing of relationships of interest because each of the three dimensions may contribute to the formation and expansion of stock markets, as described in the previous chapter. Such a multidimensional approach also coheres with the literature which suggests that state capacity cannot be adequately represented with a single indicator (Carbone and Memoli, 2015; Hendrix, 2010).

Lastly, I use the Polity IV data set (Marshall, Gurr, and Jaggers, 2017) that encompasses all 162 countries with a population of 500 000 or more as of 2006 to gauge regime authority characteristics. The Polity scheme, covering the period between 1968 and 2017 in the version used in this study, has proved to be a valuable resource for researchers as it provides regularly updated data on regimes. The fundamental premise of this project is that many polities do not fall neatly on to either side of the autocracy-democracy divide and reflect the authority traits of both systems. Thus, while Polity analysts deal with autocratic and democratic regimes separately by detecting the presence of their respective components

in each country, the continuum of modes of governance actually runs between coherent autocracies, incoherent polities, and coherent democracies. For this reason, an overall Polity score is worked out by subtracting the composite autocracy score from the composite democracy score. This variable captures *the nature of the regime* via a 21-point scale, with –10 being “strongly autocratic” and +10 being “strongly democratic”, and enables us to see whether stock markets are more likely to emerge and develop in democracies. Appendix 8.6 presents component variables used to construct measures of judicial independence, state capacity, and polity.

4.3.3. Control Variables

I control for a set of variables that frequently turn up in studies of policy diffusion and can facilitate or delay the process of stock exchange adoption and development, except for capital account balance, gross savings, and real interest rate, which limit the sample size to a great extent. The factors are grouped into four categories: cultural and historical, demographic and political, economic, and international. In a nutshell, predictions about local conditions are supplemented by an assessment of the processes whereby external agents exert considerable pressure on individual countries to take a particular course of action. It is conjectured that policy making results from the complex interplay between various forces. The aim is to measure the relative importance of each variable.

Cultural and Historical Factors

The relevant literature emphasizes the role played by teachings or practices of *religion* in shaping institutional environments. More specifically, research findings show that Catholic and Muslim countries lag behind Protestant countries in various aspects of development such as government performance (La Porta, López-de-Silanes, and Shleifer, 1999) and creditor protection (Stulz and Williamson, 2003). In this vein, Catholic and Muslim religions can be expected to have adverse effects on stock exchange adoption and development, whereas Protestantism should be conducive to market-oriented reforms. To test these contentions, I create five dummy variables (Protestant, Catholic, Muslim, Other, and Mixed) indicating the majority religion in a given country, with Protestant as the reference category. The criteria used to identify the most widely practiced religion in each country are as follows. First, the religion that is adhered by at least 50% of the population is coded as one, and other religions are coded as zero. Second, if percentages fail to reach 50%

for any religion, the category of “mixed” is coded as one, and other religions are coded as zero. Third, if percentages fail to reach 50% for any religion, but the gap between the largest and the second largest group exceeds 15%, the religion that is adhered by the biggest proportion of the population is coded as one, and other religions are coded as zero. Data come from the US Central Intelligence Agency (CIA) World Factbook and La Porta et al. (1999).

A country’s *colonial history* can have an impact on financial outcomes because of institutional legacies and cultural traditions inherited from the colonizers. For the most part, empirical evidence reveals that the British created conditions more favorable to the development of their former colonies than the French. In this regard, former British colonies are shown to have lower corruption (Treisman, 2000) and a higher chance of democratic survival (Bernhard, Reenock and Nordstrom, 2004), which, in turn, could be seen as laying the basis for the opening and operation of stock exchanges. I create two dummy variables to see whether postcolonial settings vary in financial policy and development. British colonial legacy is coded as one if there is a period of British rule in a nation’s history, and zero otherwise. By the same token, French colonial legacy is coded as one if there is a period of French rule in a nation’s history, and zero otherwise. Both variables are included in the analyses, whereas the group of countries that have never been colonized by the British or the French is used as a baseline for comparison. Data come from the CIA World Factbook.

The *legal system* is commonly identified as a hangover from the colonial era. It follows from La Porta et al.’s (1997, 1998) findings that compared to civil law countries, common law countries provide strong legal protections for investors and thus have highly developed financial markets. Historically, England is regarded as the birthplace of common law, whereas civil law emanates from France, Germany, Scandinavia, and the former Soviet Union (La Porta, Lopez-de-Silanes, and Shleifer, 2008). To control for differences in legal traditions, I create five dummy variables (English, French, German, Scandinavian, and Socialist), with English as the reference category. While there is a large amount of overlap between colonial legacy and legal origin, there is not necessarily a direct correspondence between them. For instance, Malta, which was colonized by the British in the 19th and 20th centuries, is a member of the French subfamily of civil law, whereas Japan, which has never come under colonial rule, is a member of the German subfamily of civil law. Thus, transplantation of both common law and civil law systems from a European mother country to colonies in the majority of cases does not obviate the need to control for these two

variables separately. Data on systems of law are obtained from La Porta et al. (2008) and supplemented for missing countries from Guerriero (2016).

The length of independent statehood should be playing a pivotal role in the emergence and development of stock markets. Available evidence indicates that there is a strong correlation between state antiquity and economic development, which is one of the rewards for an early start (Bockstette, Chanda, and Putterman, 2002). To control for such an age effect, it is necessary to specify the dates of the creation of independent states. Although it is a task fraught with difficulty, Gleditsch and Ward (1999) endeavor to use more specific criteria than the authors of other publications in compiling a list of independent states. I retrieve most of the data on national sovereignty from an appendix to this article. For cross-checking and supplementary information, I refer to the CIA World Factbook. The entries either mark the foundation of a new state or the formal declaration of independence. To figure out the length of independent statehood, I subtract the year of independence from the year of observation. Additionally, I create a count variable for *years since founding* which is calculated by subtracting the year of stock exchange adoption from the year of observation. The decision to control for continuity of exchange existence is based on the underlying assumption that stock markets that have been present for longer periods of time may outperform newly formed ones.

Demographic and Political Factors

To account for demographic differences between states, I include *total population*, for the size of a country may be a contributory factor in the formation and development of stock markets. Data come from the CIA World Factbook. As for differences in political agendas, I control for *the political ideology of the government* in view of the compelling evidence that the parties of the Left have lower proclivities toward neoliberal policies. Leftist governments' aversion to privatization programs (Shleifer and Vishny, 1994) and imposition of restrictions on cross-border capital flows (Garrett, 1995) offer a few glimpses of how they uphold the principles of interventionism as opposed to those of market orientation. This calls for an examination of the role played by the ideology of the political party in power in the promotion of market exchanges. Data come from 2020 Database of Political Institutions (Cruz, Keefer, and Scartascini, 2021) in which the ideological underpinnings of the president's party fall into five categories: right, center, left, not fit to be categorized as right, center, or left, and not applicable.

Economic Factors

I use a set of standard indicators as proxies for economic performance. These include GDP (to measure the size of national economy), GDP per capita (to measure national wealth), GDP growth (to control for the business cycle), and trade openness (to measure the share of trade in GDP). These variables are factored in considering that financial outcomes might be a reflection of economic conditions, whereas the literature demonstrating the long-term positive impact of stock markets on the economy provides a theoretical base to build on in the previous chapter. This is because it is more reasonable to expect the link between financial development and economic growth to be co-evolutionary rather than unidirectional (Fernández and Tamayo, 2017). Complete data for these variables come from 2017 WDI database.

International Factors

On the basis of institutional isomorphic processes, I allow for the possibility that multilateral organizations and other countries may well be a force for the diffusion of stock exchanges across the world. From this perspective, coercion, normative emulation, and mimicry are relevant to the way key policy issues are handled. First, it is widely accepted that conditionality is a form of coercion which requires that countries sign an agreement with an aid agency like the International Monetary Fund (IMF) to commit to pursuing specific policies in exchange for financial assistance. Even though there has been a low rate of compliance with pre-agreed conditions (Dreher, 2009), and program participation fails to achieve its desired effect unless accompanied by political will (Przeworski and Vreeland, 2000), IMF arrangements could still have a bearing on the formation of stock markets. The reason for this is because the Fund wants the recipient countries to introduce market-supporting reforms such as central bank independence (Polillo and Guillén, 2005) and minority shareholder rights (Guillén and Capron, 2016). The flip side is that a change of policy in the face of external pressures does not generally manifest itself in financial performance (Guillén and Capron, 2016; Weber et al., 2009). Overall, then, it is understandable to see how the allocation of funds made subject to conditionality plays out. Data on *the use of IMF credit* are obtained from 2017 WDI database.

Second, the actions of acknowledged pioneers spur other countries to normative emulation. In this case, a number of powerful nations are exemplars for the rest of the world

in how to meet standards required by the international community, impelling non-core nations to model their systems on those used by outstanding performers (Lee and Strang, 2006). However, as they set out to seek legitimacy, peripheral countries may ceremonially adopt diffusing policies without having much success in implementing them (Weber et al., 2009). In a bid to elucidate the role of normative emulation in the creation and vibrancy of stock exchanges, I turn to network studies of the world system that stratify nations into categories based on their positions in a hierarchical structure. The use of a trichotomous classification based on the assignment of countries to core, semiperipheral, and peripheral positions enables Clark and Beckfield (2009) to conform to world-system orthodoxy unlike other scholars such as Van Rossem (1996) who builds a four-tiered structure. Clark (2012) produces an updated version of this measure which has the added advantages of broadening the scope of the project to include newly independent states of the post-Cold War era (e.g., Azerbaijan and Slovenia), and detecting upward (e.g., Vietnam – from periphery to semiperiphery, or Israel – from semiperiphery to core) and downward (e.g., Morocco – from core to semiperiphery, or Iraq – from semiperiphery to periphery) mobility in the world economy during the 1990s. In an attempt to explore the relationship between world system position and democratic growth, Clark (2012) uses the Clark and Beckfield measure to study the period 1972-1989 and the later version to study the period 1990-2008. In a similar way, I control for *world system position* using data from the former up to 1990 and from the latter up to 2017. Since the group of countries that remain unclassified in both of these articles convey the impression that they share some common characteristics rather than make relevant data unavailable on a random basis, they are classified as a discrete world system zone in the present study. Given that Clark and Beckfield's (2009) analyses lend support to the claim that world system position is a significant predictor of economic growth, the core can be expected to take the lead in the opening of stock exchanges and show the semiperiphery, the periphery, and the unlabeled countries a path toward normative isomorphism, assuming, of course, the developmental potential of each state will be contingent on particular national characteristics.

Lastly, the actions of peer countries spark off imitators whose understanding of the issues at stake are unclear and process of policy making occurs through close observation of others (Henisz et al., 2005). Such a mechanism of mimicry comes into play, especially when a change of policy in neighboring countries prompts fellow competitors to keep pace with new developments for fear of damaging national reputation and losing economic status

(Simmons, 2000). Moreover, the commonalities that individual countries share tend to increase with geographic propinquity, suggesting the possibility of regional concentration of neoliberal policies (O'Loughlin, Ward, Lofdahl, Cohen, Brown, Reilly, Gleditsch, and Shin, 1998). Diffusion studies reveal evidence of the clustering in space of economic policies in a range of areas such as capital account regulation on the grounds of the success of neighbors (Quinn and Toyoda, 2007) and financial liberalization with a view to closing the gap with regional leaders (Abiad and Mody, 2005). Once again, the outcome of externally mandated changes will depend on whether or not learning is at a superficial level, though (Weber et al., 2009). To control for this kind of snowball effect, I determine *regional adoptions* by counting the number of countries that have adopted stock exchanges in a given region in a given year. Data on geographic regions are obtained from 2017 WDI database which classifies countries into seven categories: East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, North America, South Asia, and Sub-Saharan Africa.

4.4. Analysis

The dependent variables I use in my analyses require alternative methods of estimation. Survival analysis, which can be carried out using either parametric or semi-parametric models, is appropriate for predicting the hazard of stock exchange adoption. I use the Cox proportional hazards model, a commonly used survival model by virtue of being semi-parametric (that is, the baseline hazard function is not specified), demonstrating a certain robustness (that is, the results from using the Cox model will closely approximate the results from using the correct parametric model), and reinforcing the proportional hazards assumption (that is, the hazard ratio comparing any two groups is constant over time) (Kleinbaum and Klein, 2012, p. 110-112, 123-127).

There are two ways of formulating models with the number of listed domestic companies as the dependent variable. Despite being the conventional approach to count response modeling, Poisson regression is predicated on the distributional assumption that the mean and variance are equal, which is rarely met with real data (Hilbe, 2011, p. 30-41). More often than not when the variance exceeds the mean value and there is thus overdispersion, negative binomial regression is the preferred regression model. In my case

too, the negative binomial proves to be a suitable choice as a count model. So, this is the method I use to predict the number of listed domestic companies.

Lastly, least squares regression is employable for the estimates of models with a continuous dependent variable, which is market capitalization in the present case. As both listed domestic companies and market capitalization data are longitudinal in character (with yearly figures for each country), panel methods are adopted. There are, essentially, two types of techniques that can be used for analysis of longitudinal data. While fixed-effects (FE) models examine within variation, random-effects (RE) models show both within and between variation. The choice between these two models depends largely on the Hausman test that compares parameter estimates obtained from each regression model. The similarity of results suggests using the RE model since it is more efficient than the FE model (Cameron and Trivedi, 2009, p. 259-260). It is to be pointed out, however, that the inability of the FE models to estimate the effects of time-invariant variables makes it impossible to carry out the Hausman test in the present study. In this circumstance, the RE estimator is preferable on the basis that between effects cannot simply be dismissed as irrelevant when an examination of higher-level entities such as countries is of interest (Bell and Jones, 2015). So, I choose to use RE models for the longitudinal analyses in this study. In analyses of market capitalization, I also specify an AR(1) model so that each term of a time series (i.e., market capitalization of a given country in a given year) is predicted relying on the observation preceding it. All analyses are performed using Stata 16.0 software package.

5. RESULTS

Table 5.1 shows descriptive statistics and correlations for the sample of countries in the initial risk set. Pairwise correlations between variables are generally found to be at acceptable levels, but analyses carried out for exploratory purposes suggest that some problems may arise in interpreting coefficient estimates due to the fact that the independent variables are moderately correlated with each other. To overcome such difficulty, I follow a multistep strategy, entering the independent variables into regression models one by one first (for hypothesis testing), then including them as a group and in pairs (for robustness check). As a first step, Model 1 studies the effects of control variables. Next, models 2-4 test the main effects of independent variables in order of conceptual analysis. Model 5 examines the effects of all three independent variables simultaneously. Models 6-8 include combinations of these variables in groups of two. Model 9 examines the interaction between state capacity and polity. Lastly, models 10-11 study the mediational effect of judicial independence on the relationship between state capacity and stock exchange adoption.

Table 5.2 presents the results of survival analysis for stock exchange adoption. Model 1 provides a baseline that only includes control variables. The effects of religion dummies Catholic, other, and mixed, GDP, and regional adoptions are significantly positive, whereas the effects of French colonial legacy, population, and not fit to fall under three main categories of political ideology are significantly negative. Other control variables fail to reach statistical significance. Model 2 assesses the impact of judicial independence on stock exchange adoption. The result of this analysis reveals that the coefficient on judicial independence is positive and significant ($\beta = 3.827$, $p < .01$), lending support to hypothesis 1a. Accordingly, every increase of one point in judicial independence – roughly equal to the difference between the highest and the lowest scores – increases the hazard of stock exchange adoption by a multiplier of 45.92 ($e^{3.827}$). Model 3 assesses the impact of state capacity on stock exchange adoption and presents evidence that supports hypothesis 2a. As shown in Table 5.2, the coefficient on state capacity is positive and significant ($\beta = 0.920$, $p < .05$), and hence every increase of one point in state capacity increases the hazard of stock exchange adoption by about 151% ($e^{0.920} - 1 = 1.51$). Model 4 assesses the impact of polity on stock exchange adoption. The positive and significant coefficient for polity ($\beta = 0.074$, $p < .05$) indicates that every increase of one point in overall polity score increases the hazard

Table 5.1. Descriptive statistics and correlations for analyses of stock exchange adoption

Variable	Min.	Max.	Mean	Sd	N	1	2	3	4	5	6	7	8
1. Judicial independence	0.002	0.975	0.275	0.199	1998								
2. State capacity	-2.310	2.136	-0.360	0.613	2052	0.381	1.000						
3. Polity	-10	10	-2.859	5.906	1893	0.553	0.021	1.000					
4. Religion: Protestant	0	1	0.058	0.233	2145	0.043	0.093	0.005	1.000				
5. Religion: Catholic	0	1	0.146	0.353	2145	0.128	-0.008	0.038	-0.102	1.000			
6. Religion: Muslim	0	1	0.405	0.491	2145	-0.174	-0.150	-0.054	-0.204	-0.341	1.000		
7. Religion: Other	0	1	0.215	0.411	2145	0.022	0.136	0.007	-0.130	-0.217	-0.432	1.000	
8. Religion: Mixed	0	1	0.176	0.381	2145	0.060	-0.002	0.025	-0.115	-0.191	-0.381	-0.242	1.000
9. British colonial legacy	0	1	0.298	0.458	2145	0.144	-0.049	-0.023	0.022	-0.174	0.091	-0.094	0.132
10. French colonial legacy	0	1	0.386	0.487	2145	-0.070	-0.098	0.109	-0.041	-0.067	0.183	-0.026	-0.120
11. Legal system: English	0	1	0.211	0.408	2145	0.379	0.127	0.058	0.092	-0.191	-0.154	0.171	0.135
12. Legal system: French	0	1	0.711	0.453	2145	-0.284	-0.260	0.032	-0.054	0.173	0.260	-0.389	-0.043
13. Legal system: German	0	1	0.044	0.205	2145	0.100	0.318	-0.015	-0.024	0.066	-0.130	0.204	-0.099
14. Legal system: Socialist	0	1	0.034	0.181	2145	-0.248	0.000	-0.184	-0.047	-0.078	-0.155	0.358	-0.087
15. State age	0	5.308	3.576	0.902	2145	-0.150	-0.028	0.045	-0.016	0.086	-0.112	0.068	0.001
16. Population	-1.398	7.020	1.723	1.347	2145	-0.384	-0.086	-0.097	-0.041	-0.217	-0.021	0.142	0.100
17. Ideology: Right	0	1	0.067	0.250	2131	0.204	0.110	0.308	0.103	-0.016	-0.024	-0.015	-0.002
18. Ideology: Center	0	1	0.032	0.177	2131	0.167	0.011	0.302	0.046	0.044	-0.006	0.022	-0.085
19. Ideology: Left	0	1	0.341	0.474	2131	0.031	0.189	-0.156	0.083	-0.066	-0.161	0.128	0.081
20. Ideology: Not fit	0	1	0.517	0.500	2131	-0.161	-0.151	-0.120	-0.178	0.072	0.131	-0.100	-0.020
21. Ideology: Not applicable	0	1	0.043	0.203	2131	-0.060	-0.221	0.053	0.077	-0.043	0.087	-0.053	-0.062
22. GDP	17.419	26.973	21.990	1.490	1856	-0.291	0.284	-0.122	0.044	-0.127	0.031	0.053	-0.008
23. GDP per capita	4.175	10.692	6.543	1.149	1856	0.062	0.469	-0.107	0.086	0.127	0.015	-0.021	-0.161
24. GDP growth	-64.996	140.501	0.973	9.472	1800	-0.010	0.076	0.019	-0.025	0.042	-0.029	0.036	-0.022
25. Trade openness	0.021	531.737	74.417	49.000	1709	0.029	0.051	0.004	-0.082	0.136	-0.124	0.075	0.001
26. The use of IMF Credit	0	7.617	2.865	2.220	2105	0.059	-0.169	0.249	-0.021	-0.076	-0.098	0.032	0.176
27. World system position: Core	0	1	0.042	0.202	2145	0.099	0.408	-0.064	-0.052	0.064	-0.075	0.132	-0.073
28. World system position: Semiperiphery	0	1	0.097	0.295	2145	-0.019	0.255	-0.141	0.122	-0.073	0.033	0.071	-0.126
29. World system position: Periphery	0	1	0.793	0.405	2145	-0.155	-0.457	0.152	-0.036	0.016	0.093	-0.197	0.100
30. World system position: Unclassified	0	1	0.068	14.048	2145	0.199	0.104	-0.025	-0.043	0.009	-0.129	0.129	0.045
31. Regional adoptions	3	47	14.048	8.587	2145	-0.036	0.105	0.301	0.011	0.020	0.092	-0.022	-0.121

Table 5.1. (continued)

Variable	9	10	11	12	13	14	15	16	17	18	19	20	21
9. British colonial legacy	1.000												
10. French colonial legacy	-0.375	1.000											
11. Legal system: English	0.514	-0.321	1.000										
12. Legal system: French	-0.429	0.425	-0.812	1.000									
13. Legal system: German	-0.140	-0.170	-0.111	-0.336	1.000								
14. Legal system: Socialist	0.074	-0.149	-0.097	-0.294	-0.040	1.000							
15. State age	-0.090	0.069	-0.067	0.087	-0.121	0.069	1.000						
16. Population	-0.105	-0.061	-0.254	0.081	0.119	0.235	0.323	1.000					
17. Ideology: Right	0.045	0.013	0.094	-0.056	-0.020	-0.051	0.009	-0.089	1.000				
18. Ideology: Center	-0.039	0.001	-0.004	-0.006	0.053	-0.035	-0.054	-0.060	-0.049	1.000			
19. Ideology: Left	-0.052	-0.069	-0.081	-0.036	0.135	0.121	-0.055	0.104	-0.193	-0.132	1.000		
20. Ideology: Not fit	0.017	0.101	0.069	0.034	-0.160	-0.061	0.121	-0.062	-0.277	-0.189	-0.743	1.000	
21. Ideology: Not applicable	0.057	-0.103	-0.093	0.075	0.057	-0.040	-0.134	0.070	-0.057	-0.039	-0.153	-0.220	1.000
22. GDP	-0.071	-0.052	-0.252	0.083	0.162	0.282	0.259	0.692	-0.016	-0.062	0.121	-0.101	0.053
23. GDP per capita	0.110	-0.068	-0.034	-0.053	0.048	0.204	-0.012	-0.272	0.060	-0.020	0.084	-0.089	-0.034
24. GDP growth	-0.016	-0.014	-0.032	-0.011	0.055	0.067	0.062	-0.026	0.035	0.000	0.011	-0.012	-0.046
25. Trade openness	0.067	-0.113	0.162	-0.131	0.014	-0.129	-0.143	-0.481	0.002	-0.024	0.053	-0.025	-0.039
26. The use of IMF Credit	-0.049	0.153	0.150	-0.082	-0.065	-0.091	0.252	0.298	-0.015	0.027	-0.079	0.070	0.005
27. World system position: Core	-0.067	-0.167	-0.001	-0.197	0.475	-0.040	0.138	0.225	0.000	0.001	0.120	-0.100	-0.033
28. World system position: Semiperiphery	0.053	-0.022	-0.026	-0.056	0.023	0.174	0.002	0.094	0.027	-0.006	0.132	-0.121	-0.038
29. World system position: Periphery	-0.152	0.233	-0.159	0.271	-0.217	-0.076	0.043	-0.066	-0.080	0.033	-0.095	0.106	0.032
30. World system position: Unclassified	0.236	-0.214	0.287	-0.212	-0.058	-0.051	-0.182	-0.184	0.100	-0.048	-0.102	0.055	0.021
31. Regional adoptions	-0.236	-0.106	-0.210	0.106	0.213	-0.033	-0.041	0.085	0.012	0.070	0.011	-0.067	0.065
Variable	22	23	24	25	26	27	28	29	30	31			
22. GDP	1.000												
23. GDP per capita	0.504	1.000											
24. GDP growth	-0.001	0.037	1.000										
25. Trade openness	-0.300	0.214	0.181	1.000									
26. The use of IMF Credit	-0.012	-0.452	-0.019	-0.123	1.000								
27. World system position: Core	0.359	0.208	-0.004	-0.083	0.006	1.000							
28. World system position: Semiperiphery	0.427	0.431	0.007	-0.020	-0.190	-0.069	1.000						
29. World system position: Periphery	-0.344	-0.422	-0.049	-0.019	0.287	-0.412	-0.640	1.000					
30. World system position: Unclassified	-0.212	0.011	0.069	0.110	-0.247	-0.057	-0.088	-0.529	1.000				
31. Regional adoptions	0.210	0.159	0.049	0.119	-0.005	0.069	0.020	-0.015	-0.054	1.000			

Note: The legal system category *Scandinavian* is not observed in the data.

of stock exchange adoption by about 8% ($e^{0.074} - 1 = 0.08$), providing support for hypothesis 3a.

Model 5 is the full model that incorporates all of the independent variables to explore how additive effects play out. The combination of these factors brings about a fundamental change in the results because the coefficients on each of the independent variables are now positive but not significant. Models 6-8 are ways in which I try to get to the bottom of what creates this problem. Model 6 couples judicial independence and state capacity together and evaluates their impact on stock exchange adoption. This analysis shows that the coefficient on judicial independence is positive and significant ($\beta = 3.107$, $p < .05$), while the coefficient on state capacity is positive but not significant. So, when polity is omitted from analysis, every increase of one point in judicial independence increases the hazard of stock exchange adoption by a multiplier of 22.35 ($e^{3.107}$). Model 7 investigates whether the combination of judicial independence and polity produces an additive effect. What is noticeable here is the failure of both factors to reach statistical significance, though the signs of the coefficients on these variables are positive once again. Model 8 focuses on state capacity and polity to the exclusion of judicial independence. This analysis indicates that the coefficient on state capacity is positive and significant ($\beta = 0.869$, $p < .05$), while the coefficient on polity is positive but not significant. So, when judicial independence is omitted from analysis, every increase of one point in state capacity increases the hazard of stock exchange adoption by about 138% ($e^{0.869} - 1 = 1.38$). In sum, the independent variables of interest each has a direct impact on stock exchange adoption when considered separately but lose their impact when added as a block to analysis. An additional three models developed to check the robustness of these estimates demonstrate that these variables are not equally important for stock exchange adoption, and provide evidence of the predictive superiority of judicial independence over state capacity, and that of state capacity over polity. Furthermore, judicial independence and polity are no longer statistically significant predictors of stock exchange adoption when paired together. This finding is attributable to the degree of collinearity between the variables involved, whose coefficients are lower and standard errors are higher than those in simpler models. Yet, we observe an increase in standard errors due not only to the degree of collinearity, but also to relatively small size of the sample when the number of independent variables in analysis increases.

Table 5.2. Survival analysis of stock exchange adoption

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Religion									
Protestant	baseline	baseline	baseline	baseline	baseline	baseline	baseline	baseline	baseline
Catholic	1.841* (0.906)	1.553 (1.249)	2.382* (0.955)	1.773 (0.924)	2.317 (1.354)	2.022 (1.317)	1.830 (1.296)	2.323* (0.959)	2.600** (0.972)
Muslim	1.088 (0.824)	0.556 (1.211)	1.558 (0.855)	1.060 (0.846)	1.237 (1.281)	1.132 (1.255)	0.860 (1.252)	1.420 (0.857)	1.524 (0.852)
Other	2.316** (0.888)	0.697 (1.323)	2.588** (0.911)	1.992* (0.939)	1.306 (1.406)	1.245 (1.365)	0.989 (1.378)	2.285* (0.945)	2.405* (0.946)
Mixed	1.889* (0.875)	1.338 (1.289)	2.112* (0.902)	1.860* (0.899)	2.027 (1.376)	1.872 (1.336)	1.672 (1.346)	2.019* (0.902)	2.300* (0.912)
British colonial legacy	0.479 (0.481)	0.432 (0.548)	0.218 (0.526)	0.102 (0.521)	0.106 (0.593)	0.163 (0.589)	0.128 (0.588)	0.084 (0.537)	0.130 (0.530)
French colonial legacy	-0.930* (0.441)	-0.818 (0.509)	-1.197* (0.481)	-1.196* (0.486)	-1.288* (0.577)	-1.065 (0.552)	-1.251* (0.573)	-1.321** (0.495)	-1.291** (0.495)
Legal system									
English	baseline	baseline	baseline	baseline	baseline	baseline	baseline	baseline	baseline
French	-0.300 (0.501)	-0.542 (0.549)	-0.533 (0.534)	-0.464 (0.520)	-0.798 (0.583)	-0.700 (0.570)	-0.711 (0.569)	-0.571 (0.539)	-0.634 (0.537)
German	-0.823 (0.747)	-0.742 (0.796)	-1.590 (0.821)	-1.218 (0.790)	-1.517 (0.935)	-1.205 (0.865)	-1.045 (0.859)	-1.891* (0.868)	-2.226* (0.896)
Socialist	-0.687 (1.320)	0.502 (1.383)	-1.024 (1.341)	-0.470 (1.359)	0.194 (1.454)	0.258 (1.400)	0.422 (1.436)	-0.855 (1.381)	-0.630 (1.401)
State age	-0.268 (0.247)	-0.360 (0.253)	-0.268 (0.248)	-0.204 (0.245)	-0.248 (0.255)	-0.317 (0.254)	-0.236 (0.256)	-0.238 (0.245)	-0.345 (0.251)
Population	-4.938* (2.417)	-5.223* (2.589)	-3.461 (2.625)	-4.765 (2.474)	-3.528 (2.790)	-4.374 (2.726)	-4.254 (2.677)	-3.626 (2.647)	-3.541 (2.626)

Table 5.2. (continued)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Ideology									
Right	baseline	baseline	baseline	baseline	baseline	baseline	baseline	baseline	baseline
Center	-0.726 (0.859)	-0.528 (0.880)	-0.122 (0.888)	-0.266 (0.882)	0.139 (0.939)	-0.168 (0.909)	-0.169 (0.916)	0.154 (0.911)	-0.001 (0.900)
Left	-0.877 (0.483)	-0.804 (0.558)	-0.663 (0.517)	0.076 (0.621)	-0.022 (0.729)	-0.649 (0.586)	-0.055 (0.713)	0.116 (0.641)	-0.033 (0.635)
Not fit	-1.023* (0.409)	-0.474 (0.485)	-0.661 (0.454)	-0.052 (0.594)	0.217 (0.650)	-0.319 (0.518)	0.167 (0.635)	0.106 (0.619)	0.012 (0.611)
Not applicable	-45.328	-44.371	-44.580	-43.768	-43.150	-44.028	-43.453	-42.819	-42.139
GDP	5.250* (2.376)	5.961* (2.566)	4.003 (2.570)	5.240* (2.434)	4.327 (2.766)	5.125 (2.697)	5.016 (2.653)	4.301 (2.597)	4.237 (2.576)
GDP per capita	-4.632 (2.422)	-5.165* (2.606)	-3.381 (2.611)	-4.587 (2.483)	-3.559 (2.808)	-4.355 (2.730)	-4.221 (2.702)	-3.653 (2.637)	-3.530 (2.615)
GDP growth	-0.021 (0.017)	-0.023 (0.019)	-0.031 (0.019)	-0.019 (0.019)	-0.034 (0.022)	-0.029 (0.020)	-0.031 (0.021)	-0.030 (0.020)	-0.025 (0.020)
Trade openness	-0.001 (0.004)	-0.001 (0.005)	-0.001 (0.004)	-0.001 (0.004)	-0.003 (0.005)	-0.002 (0.005)	-0.002 (0.005)	-0.001 (0.004)	-0.001 (0.004)
The use of IMF credit	0.024 (0.080)	-0.033 (0.087)	0.027 (0.082)	-0.016 (0.087)	-0.014 (0.093)	-0.014 (0.089)	-0.023 (0.093)	-0.005 (0.087)	0.001 (0.088)
World system position									
Core	baseline	baseline	baseline	baseline	baseline	baseline	baseline	baseline	baseline
Semiperiphery	-0.048 (0.648)	-0.137 (0.731)	0.893 (0.731)	0.289 (0.663)	0.609 (0.812)	0.439 (0.799)	0.241 (0.762)	1.009 (0.739)	0.903 (0.740)

Table 5.2. (continued)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Periphery	-0.738 (0.781)	-0.251 (0.901)	0.707 (0.945)	-0.305 (0.790)	0.713 (1.014)	0.426 (1.000)	0.184 (0.937)	0.910 (0.948)	0.873 (0.942)
Unclassified	-1.117 (0.988)	-0.331 (1.081)	0.113 (1.081)	-0.150 (1.031)	1.038 (1.225)	0.360 (1.157)	0.657 (1.184)	0.688 (1.106)	0.626 (1.097)
Regional adoptions	0.042* (0.019)	0.069** (0.021)	0.038 (0.020)	0.031 (0.020)	0.057* (0.024)	0.065** (0.022)	0.060** (0.023)	0.030 (0.021)	0.034 (0.021)
Judicial independence		3.827** (1.271)			1.923 (1.955)	3.107* (1.379)	2.797 (1.807)		
State capacity			0.920* (0.355)		0.615 (0.438)	0.527 (0.415)		0.869* (0.380)	1.016** (0.386)
Polity				0.074* (0.032)	0.051 (0.047)		0.047 (0.046)	0.061 (0.033)	0.062 (0.033)
State capacity x polity									-0.064 (0.038)
No. of subjects	92	85	91	89	82	84	82	88	88
Number of observations	1613	1489	1547	1473	1352	1455	1373	1426	1426
LR chi2	83.83***	93.26***	90.17***	84.39***	90.74***	93.86***	88.74***	89.80***	92.71***
df	23	24	24	24	26	25	25	25	26

* p<.05; **p<.01; ***p<.001.

Standard errors are in parentheses.

Model 9 assesses the impact of the interaction between state capacity and polity on stock exchange adoption. This analysis shows that the coefficient on the interaction term is negative but not significant and thus there is no evidence to lend support to hypothesis 4a. Put differently, polity has an independent but not moderating effect on stock exchange adoption. What follows is an examination of whether judicial independence mediates the relationship between state capacity and stock exchange adoption. I adopt a series of procedures for tracking mediation (see Baron and Kenny, 1986). The first step seeks to establish the link between the independent variable and the dependent variable. In this regard, model 3 has already demonstrated that state capacity has a direct effect on stock exchange adoption. The second step seeks to detect the presence of association between the independent variable and the mediator. To this end, Table 5.3 shows the estimates of RE linear regression models with judicial independence as the dependent variable. Model 10 includes all variables, except for state capacity, as independent variables. Then, model 11 proceeds to examine the effects of the same independent variables with the addition of state capacity on judicial independence. Evidence suggests that state capacity has a significant positive impact on judicial independence ($\beta = 0.029$, $p < .001$). The preliminary results therefore point to positive indirect effects of state capacity on stock exchange adoption. The next step assesses the presence of association between the mediator and the dependent variable. In this regard, model 2 has already demonstrated that judicial independence has a direct effect on stock exchange adoption. The fourth step aims at determining whether the effect of the independent variable on the dependent variable remains significant, even after controlling for the mediator. In this regard, model 6 has already demonstrated that state capacity is no longer statistically significant predictor of stock exchange adoption when judicial independence is included in analysis. On the whole, hypothesis 5a is supported by the finding that the relationship between state capacity and stock exchange adoption is fully mediated by judicial independence.

Nearly all of the control variables are found to be poor predictors of stock exchange adoption. Yet, relatively speaking, the coefficients on French colonial legacy are consistently negative and significant, suggesting former French colonies adopt stock exchanges much more slowly than countries that have never been colonized by the British or the French. The number of adoptions in the region comes next in importance. In most of the models, this factor contributes to the formation of stock markets. Additionally, all the majority religions except for Muslim have significant effects in a range of different models. Therefore, contrary

Table 5.3. Linear regression analysis of judicial independence

Judicial independence		Model 10	Model 11
Religion			
	Protestant	baseline	baseline
	Catholic	0.116 (0.080)	0.125 (0.077)
	Muslim	0.011 (0.074)	0.014 (0.071)
	Other	0.072 (0.076)	0.069 (0.073)
	Mixed	0.050 (0.078)	0.050 (0.075)
British colonial legacy		0.026 (0.036)	0.030 (0.035)
French colonial legacy		-0.006 (0.033)	0.000 (0.032)
Legal system			
	English	baseline	baseline
	French	-0.067 (0.041)	-0.071 (0.039)
	German	-0.122 (0.068)	-0.136* (0.065)
	Socialist	-0.207 (0.126)	-0.199 (0.120)
State age		-0.007 (0.007)	-0.009 (0.007)
Population		-0.233 (0.168)	-0.074 (0.168)
Ideology			
	Right	baseline	baseline
	Center	-0.012 (0.012)	-0.008 (0.012)
	Left	0.058*** (0.008)	0.059*** (0.008)
	Not fit	0.028** (0.008)	0.025** (0.008)
	Not applicable	0.038** (0.014)	0.040** (0.014)
GDP		0.211 (0.167)	0.050 (0.167)
GDP per capita		-0.197 (0.167)	-0.040 (0.167)

Table 5.3. (continued)

Judicial independence	Model 10	Model 11
GDP growth	0.000 (0.000)	0.000 (0.000)
Trade openness	0.000 (0.000)	0.000 (0.000)
The use of IMF credit	0.002 (0.001)	0.002 (0.001)
World system position		
Core	baseline	baseline
Semiperiphery	-0.021 (0.057)	-0.019 (0.055)
Periphery	-0.080 (0.056)	-0.069 (0.054)
Unclassified	0.027 (0.079)	0.018 (0.075)
Regional adoptions	-0.003*** (0.001)	-0.003*** (0.001)
Polity	0.012*** (0.000)	0.012*** (0.000)
State capacity		0.029*** (0.006)
No. of subjects	82	82
Number of observations	1373	1352
LR chi2	800.46***	803.48***
df	25	26

* p < .05; **p < .01; ***p < .001.
Standard errors are in parentheses.

to expectations, these countries have higher adoption rates than Protestant countries, presumably because this work focuses on the process of diffusion among late adopters. The remaining factors, besides such variables that fail to reach statistical significance beyond the first few models (e.g., GDP) or until the inclusion of many other variables (e.g., German legal system), are rarely, if ever, linked to stock exchange adoption. In aggregate, four hypotheses out of five proposed for stock exchange adoption are supported, underlining the importance of state-level variables over and above that of cultural, historical, demographic, political, economic, and international factors.

Table 5.4 shows descriptive statistics and correlations for the sample of countries with stock exchanges in the period after 1980. Pairwise correlations between variables are again found to be generally low, apart from those between the independent variables. Thus, I stick to the aforementioned strategy to know to what extent the results obtained by single-variable and integrative models are similar. The number of listed domestic companies is the dependent variable under study in the present case. Models 1-4 follow the same sequence as the former set of models: control variables first, then independent variables one after the other. In a similar vein, model 5 examines the effects of all three independent variables simultaneously, and model 6 couples judicial independence and state capacity together. Model 7 constitutes interactive effects, whereas models 8-9 perform mediational analyses.

Table 5.5 presents the results of negative binomial analysis for the number of listed domestic companies. According to model 1, the effects of the Muslim religion, British colonial legacy, French colonial legacy, the length of independent statehood, population, GDP per capita, the semiperiphery, the periphery, and regional adoptions are significantly positive, whereas the effects of French legal system, German legal system, not fit to fall under three main categories of political ideology, GDP, and the use of IMF credit are significantly negative. Other control variables fail to reach statistical significance. Model 2 assesses the impact of judicial independence on stock exchange development, as measured by listed domestic companies. The result of this analysis reveals that the coefficient on judicial independence is positive and significant ($\beta = 1.077$, $p < .01$), lending support to hypothesis 1b. Accordingly, every increase of one point in judicial independence increases the number of companies which have shares listed on an exchange by a multiplier of 2.94 ($e^{1.077}$). Model 3 assesses the impact of state capacity on listed domestic companies and presents evidence that supports hypothesis 2b. As shown in Table 5.5, the coefficient on state capacity is positive and significant ($\beta = 0.324$, $p < .001$), and hence every increase of one point in state capacity increases the number of companies which have shares listed on an exchange by about 38% ($e^{0.324} - 1 = 0.38$). Model 4 assesses the impact of polity on listed domestic companies. This analysis shows that the coefficient on polity is not significant and thus there is no evidence to lend support to hypothesis 3b.

Model 5 is the full model that incorporates all of the independent variables. This time, the coefficients on judicial independence ($\beta = 2.181$, $p < .001$), state capacity ($\beta = 0.279$, $p < .001$), and polity ($\beta = -0.040$, $p < .001$) are all significant. It is noteworthy that independent

Table 5.4. Descriptive statistics and correlations for analyses of stock exchange development

Variable	Min.	Max.	Mean	Std	N	1	2	3	4	5	6	7	8
1. Listed domestic companies	1	3485	156.588	338.455	726	1.000							
2. Market capitalization	14.927	29.796	22.829	2.219	582	0.571	1.000						
3. Judicial independence	0.002	0.977	0.369	0.246	3520	-0.260	-0.234	1.000					
4. State capacity	-2.31	2.348	-0.002	0.767	3523	0.063	0.270	0.604	1.000				
5. Polity	-10	10	-0.071	7.041	3471	-0.209	-0.152	0.715	0.404	1.000			
6. Religion: Protestant	0	1	0.064	0.245	3827	-0.147	-0.300	0.172	0.058	0.044	1.000		
7. Religion: Catholic	0	1	0.173	0.378	3827	-0.080	0.003	0.221	0.120	0.228	-0.120	1.000	
8. Religion: Muslim	0	1	0.334	0.472	3827	-0.075	0.249	-0.354	-0.262	-0.332	-0.185	-0.323	1.000
9. Religion: Other	0	1	0.261	0.439	3827	0.268	-0.027	0.119	0.176	0.107	-0.155	-0.271	-0.420
10. Religion: Mixed	0	1	0.169	0.375	3827	-0.047	-0.025	-0.017	-0.030	0.034	-0.118	-0.206	-0.319
11. British colonial legacy	0	1	0.326	0.469	3827	-0.190	-0.201	0.130	-0.096	-0.018	0.078	-0.196	0.031
12. French colonial legacy	0	1	0.268	0.443	3827	-0.107	-0.085	-0.184	-0.279	-0.120	-0.067	-0.039	0.190
13. Legal system: English	0	1	0.257	0.437	3827	-0.167	-0.219	0.244	0.062	0.009	0.193	-0.258	-0.128
14. Legal system: French	0	1	0.611	0.488	3827	-0.093	0.085	-0.342	-0.345	-0.104	-0.161	0.135	0.276
15. Legal system: German	0	1	0.112	0.315	3827	0.275	0.145	0.281	0.474	0.225	-0.001	0.178	-0.205
16. State age	0	5.308	3.657	0.930	3827	0.184	0.361	-0.086	0.004	0.083	-0.080	0.095	-0.066
17. Years since founding	0	36	12.238	8.063	1756	0.210	0.579	0.171	0.280	0.160	0.005	0.049	-0.033
18. Population	-1.398	7.229	1.780	1.439	3824	0.593	0.564	-0.365	-0.050	-0.112	-0.118	-0.141	0.028
19. Ideology: Right	0	1	0.133	0.340	3789	-0.099	-0.067	0.297	0.201	0.352	0.059	0.102	-0.120
20. Ideology: Center	0	1	0.046	0.209	3789	0.062	0.177	0.093	0.062	0.186	0.025	0.083	-0.030
21. Ideology: Left	0	1	0.317	0.465	3789	0.203	-0.062	0.039	0.075	-0.063	0.095	-0.002	-0.158
22. Ideology: Not fit	0	1	0.478	0.500	3789	-0.131	0.024	-0.249	-0.168	-0.260	-0.153	-0.089	0.216
23. GDP	17.419	30.046	22.804	1.778	3513	0.590	0.875	0.022	0.486	0.098	-0.054	0.007	0.023
24. GDP per capita	4.175	10.925	7.254	1.427	3510	-0.015	0.507	0.395	0.650	0.211	0.048	0.155	-0.020
25. GDP growth	-64.996	140.501	1.890	8.000	3442	0.246	0.125	0.032	0.110	0.061	-0.025	0.039	-0.055
26. Trade openness	0.021	531.737	82.694	45.398	3312	-0.276	-0.196	0.243	0.182	0.108	-0.046	0.168	-0.147
27. The use of IMF credit	0	10.090	2.767	2.541	3784	-0.095	-0.217	-0.066	-0.166	0.148	-0.031	-0.085	-0.066
28. World system position: Core	0	1	0.107	0.309	3827	0.342	0.529	0.152	0.478	0.121	-0.091	0.012	-0.061
29. World system position: Semiperiphery	0	1	0.185	0.388	3827	-0.184	-0.138	0.136	0.227	0.005	0.024	0.135	0.012
30. World system position: Periphery	0	1	0.639	0.480	3827	-0.132	-0.184	-0.293	-0.530	-0.075	0.014	-0.084	0.102
31. World system position: Unclassified	0	1	0.069	0.253	3827	-0.102	-0.384	0.166	0.069	-0.019	0.047	-0.061	-0.138
32. Regional adoptions	3	47	19.934	13.018	3827	-0.038	0.149	0.283	0.486	0.460	-0.019	0.114	-0.065

Table 5.4. (continued)

Variable	9	10	11	12	13	14	15	16	17	18	19	20	21
9. Religion: Other	1.000												
10. Religion: Mixed	-0.268	1.000											
11. British colonial legacy	-0.124	0.252	1.000										
12. French colonial legacy	-0.053	-0.093	-0.230	1.000									
13. Legal system: English	0.064	0.220	0.568	-0.305	1.000								
14. Legal system: French	-0.258	-0.075	-0.365	0.437	-0.738	1.000							
15. Legal system: German	0.205	-0.160	-0.247	-0.215	-0.209	-0.445	1.000						
16. State age	-0.004	0.043	-0.011	0.050	0.009	0.079	-0.153	1.000					
17. Years since founding	-0.013	-0.002	0.015	-0.078	0.050	-0.050	0.012	0.242	1.000				
18. Population	0.116	0.049	-0.181	-0.050	-0.192	0.062	0.099	0.293	0.011	1.000			
19. Ideology: Right	-0.054	0.072	0.072	-0.071	0.088	-0.094	0.047	0.096	-0.016	-0.112	1.000		
20. Ideology: Center	0.032	-0.099	-0.091	-0.005	-0.063	0.023	0.066	-0.056	0.050	0.028	-0.086	1.000	
21. Ideology: Left	0.057	0.073	-0.042	-0.005	-0.013	-0.045	0.047	-0.070	-0.088	0.128	-0.267	-0.149	1.000
22. Ideology: Not fit	-0.019	-0.060	0.020	0.071	0.005	0.070	-0.103	0.061	0.068	-0.067	-0.375	-0.209	-0.652
23. GDP	0.082	-0.093	-0.083	-0.181	-0.155	-0.073	0.294	0.282	0.411	0.633	0.046	0.059	0.051
24. GDP per capita	0.014	-0.174	0.115	-0.195	-0.002	-0.170	0.248	0.068	0.511	-0.230	0.162	0.037	-0.050
25. GDP growth	0.071	-0.037	-0.033	-0.045	-0.043	-0.030	0.094	0.033	0.014	0.022	0.006	0.009	0.018
26. Trade openness	0.105	-0.084	0.075	-0.074	0.049	-0.114	0.131	-0.150	0.142	-0.458	0.059	-0.030	0.015
27. The use of IMF credit	0.057	0.123	-0.061	0.064	0.029	0.029	-0.065	0.117	-0.197	0.310	-0.048	0.042	-0.026
28. World system position: Core	0.166	-0.070	-0.124	-0.210	-0.005	-0.209	0.352	0.213	0.088	0.363	0.061	0.042	0.024
29. World system position: Semiperiphery	-0.042	-0.118	0.074	-0.008	-0.022	-0.073	0.115	-0.064	0.068	0.015	0.090	0.071	0.047
30. World system position: Periphery	-0.172	0.150	-0.050	0.229	-0.128	0.288	-0.269	0.009	-0.142	-0.130	-0.137	-0.057	-0.023
31. World system position: Unclassified	0.189	-0.018	0.133	-0.164	0.282	-0.179	-0.096	-0.179	0.021	-0.220	0.048	-0.055	-0.063
32. Regional adoptions	0.127	-0.170	-0.281	-0.286	-0.259	-0.020	0.424	-0.138	0.171	0.067	0.125	0.152	-0.072
Variable	22	23	24	25	26	27	28	29	30	31	32		
22. Ideology: Not fit	1.000												
23. GDP	-0.097	1.000											
24. GDP per capita	-0.060	0.607	1.000										
25. GDP growth	-0.014	0.065	0.058	1.000									
26. Trade openness	-0.029	-0.108	0.343	0.148	1.000								
27. The use of IMF credit	0.034	-0.076	-0.439	-0.009	-0.187	1.000							
28. World system position: Core	-0.065	0.568	0.324	0.009	-0.059	-0.003	1.000						
29. World system position: Semiperiphery	-0.117	0.311	0.369	0.034	0.173	-0.142	-0.165	1.000					
30. World system position: Periphery	0.115	-0.511	-0.509	-0.057	-0.151	0.231	-0.461	-0.634	1.000				
31. World system position: Unclassified	0.045	-0.204	0.001	0.043	0.094	-0.218	-0.094	-0.129	-0.362	1.000			
32. Regional adoptions	-0.075	0.393	0.404	0.110	0.189	0.065	0.250	0.124	-0.224	-0.071	1.000		

Note: The legal system categories *Scandinavian* and *Socialist*, and the ideology category *Not applicable* are not observed in the data.

effects of judicial independence and state capacity are not cancelled out by the measurement of additive effects, and polity becomes a statistically significant predictor of listed domestic companies through a combination of all three independent variables despite the degree of collinearity among them. In these circumstances, there is no need to study the effects of these factors in groups of two, apart from the combination of judicial independence and state capacity required for mediation hypothesis (see model 6 below). Model 7 assesses the impact of the interaction between state capacity and polity on listed domestic companies. This analysis shows that the coefficient on the interaction term is positive and significant ($\beta = 0.031$, $p < .001$), lending support to hypothesis 4b. Accordingly, every increase of one point in overall polity score increases the effect of state capacity on the number of companies which have shares listed on an exchange by about 3.1% ($e^{0.031} - 1 = 0.031$). So, this investigation uncovers that polity does not have a direct impact on listed domestic companies, while additive and moderating effects occur when it is accompanied by other state-level variables.

As for an examination of whether judicial independence mediates the relationship between state capacity and listed domestic companies, I follow four sequential steps delineated earlier in this chapter. The first step seeks to establish the link between the independent variable and the dependent variable. In this regard, model 3 has already demonstrated that state capacity has a direct effect on the number of companies which have shares listed on an exchange. The second step seeks to detect the presence of association between the independent variable and the mediator. To this end, Table 5.6 shows the estimates of RE linear regression models with judicial independence as the dependent variable. Model 8 includes all variables, except for state capacity, as independent variables. Then, model 9 proceeds to examine the effects of the same independent variables with the addition of state capacity on judicial independence. Evidence suggests that state capacity has a significant positive impact on judicial independence ($\beta = 0.013$, $p < .05$). The preliminary results therefore point to positive indirect effects of state capacity on listed domestic companies. The next step assesses the presence of association between the mediator and the dependent variable. In this regard, model 2 has already demonstrated that judicial independence has a direct effect on the number of companies which have shares listed on an exchange. The fourth step aims at determining whether the effect of the independent variable on the dependent variable remains significant, even after controlling for the mediator. In this regard, model 6 demonstrates that both judicial independence and state capacity are

Table 5.5. Negative binomial analysis of the number of listed domestic companies

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Religion							
Protestant	baseline						
Catholic	-0.883 (0.566)	-0.659 (0.937)	-0.518 (0.663)	-0.397 (0.591)	-2.143* (0.950)	-1.973* (0.954)	-0.961 (0.941)
Muslim	1.166* (0.541)	1.014 (0.973)	1.441* (0.690)	1.631** (0.587)	-1.190 (1.058)	-0.753 (1.053)	0.678 (1.079)
Other	-0.418 (0.566)	-0.522 (0.946)	-0.083 (0.659)	0.032 (0.587)	-2.128* (1.002)	-1.933 (1.002)	-0.545 (0.961)
Mixed	-1.089 (0.626)	0.558 (1.155)	-0.992 (0.806)	-0.584 (0.689)	-0.973 (1.256)	-1.163 (1.250)	-2.245 (1.316)
British colonial legacy	1.183**	1.388***	1.306***	1.127**	1.881***	1.843***	1.404***
French colonial legacy	(0.341)	(0.399)	(0.353)	(0.338)	(0.427)	(0.411)	(0.390)
	2.167***	1.130*	2.391***	2.535***	1.167	1.461*	2.069***
	(0.454)	(0.484)	(0.497)	(0.504)	(0.635)	(0.621)	(0.515)
Legal system							
English	baseline						
French	-1.888*** (0.385)	-1.796*** (0.423)	-1.600*** (0.394)	-1.804*** (0.392)	-1.434** (0.429)	-1.771*** (0.387)	-1.961*** (0.429)
German	-1.893*** (0.416)	-2.309*** (0.463)	-1.898*** (0.428)	-1.818*** (0.431)	-2.658*** (0.474)	-2.745*** (0.444)	-2.527*** (0.501)
State age	0.205* (0.089)	-0.026 (0.085)	0.209* (0.089)	0.194* (0.097)	-0.161 (0.099)	-0.059 (0.083)	0.174 (0.096)
Years since founding	-0.003 (0.005)	0.011* (0.005)	0.004 (0.006)	-0.001 (0.005)	0.025*** (0.007)	0.020** (0.006)	0.001 (0.006)

Table 5.5. (continued)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Population	9.486*** (1.240)	8.951*** (1.268)	8.401*** (1.308)	8.896*** (1.289)	6.769*** (1.358)	7.936*** (1.259)	7.419*** (1.322)
Ideology							
Right	baseline						
Center	-0.008 (0.067)	0.003 (0.075)	0.043 (0.074)	-0.015 (0.066)	-0.066 (0.072)	-0.015 (0.073)	0.000 (0.073)
Left	0.063 (0.037)	-0.009 (0.039)	0.019 (0.041)	0.031 (0.041)	-0.137** (0.043)	-0.078 (0.041)	-0.013 (0.042)
Not fit	-0.162** (0.052)	-0.232*** (0.055)	-0.206*** (0.054)	-0.213*** (0.055)	-0.363*** (0.058)	-0.286*** (0.055)	-0.253*** (0.058)
GDP	-9.234*** (1.239)	-8.727*** (1.272)	-8.159*** (1.311)	-8.661*** (1.290)	-6.523*** (1.369)	-7.749*** (1.265)	-7.093*** (1.327)
GDP per capita	9.364*** (1.242)	8.848*** (1.272)	8.142*** (1.315)	8.767*** (1.293)	6.512*** (1.370)	7.731*** (1.265)	7.096*** (1.328)
GDP growth	0.002 (0.003)	0.002 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)
Trade openness	0.000 (0.001)	-0.001 (0.001)	-0.002* (0.001)	-0.002 (0.001)	-0.003** (0.001)	-0.003** (0.001)	-0.001 (0.001)
The use of IMF credit	-0.036*** (0.006)	-0.030*** (0.007)	-0.036*** (0.008)	-0.038*** (0.006)	-0.032*** (0.008)	-0.031*** (0.008)	-0.034*** (0.008)
World system position							
Core	baseline						
Semiperiphery	1.264*** (0.271)	0.456 (0.340)	1.426*** (0.292)	1.270*** (0.277)	0.266 (0.423)	0.393 (0.389)	1.516*** (0.306)

Table 5.5. (continued)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Periphery	0.893* (0.352)	0.406 (0.400)	1.035** (0.374)	0.808* (0.359)	0.525 (0.433)	0.732 (0.418)	1.620*** (0.463)
Unclassified	0.556 (0.576)	0.260 (0.841)	1.317 (0.711)	0.928 (0.636)	-0.053 (0.982)	-0.072 (0.943)	0.982 (0.870)
Regional adoptions	0.040*** (0.006)	0.031*** (0.005)	0.039*** (0.006)	0.041*** (0.006)	0.030*** (0.005)	0.031*** (0.005)	0.034*** (0.006)
Judicial independence		1.077** (0.379)			2.181*** (0.430)	1.204*** (0.343)	
State capacity			0.324*** (0.077)		0.279*** (0.072)	0.286*** (0.071)	0.363*** (0.071)
Polity				-0.004 (0.008)	-0.040*** (0.011)		-0.019 (0.011)
State capacity x polity							0.031*** (0.008)
Number of groups	40	37	38	38	35	35	38
Number of observations	684	611	597	630	539	551	585
Wald chi2	685.3***	671.19***	674.34***	644.4***	717.05***	718.69	688.52***
df	23	24	24	24	26	25	26

* p < .05; ** p < .01; *** p < .001.

Standard errors are in parentheses.

statistically significant predictors of the number of listed domestic companies when paired together. As a result, hypothesis 5b is supported by the finding that the relationship between state capacity and listed domestic companies is partially mediated by judicial independence.

A number of control variables are found to be reliable predictors of listed domestic companies. On the one hand, the coefficients on British colonial legacy, population, GDP per capita, and the number of adoptions in the region are consistently positive and significant. The results thus confirm that former British colonies have a relatively large number of listed domestic companies compared to countries that have never been colonized by the British or the French. Also, a larger population, a higher GDP per capita, and an increasing number of stock exchanges in neighboring countries are associated with a rise in the number of companies which have shares listed on an exchange. On the other hand, the coefficients on French legal system, German legal system, not fit to fall under three main categories of political ideology, GDP, and the use of IMF credit are consistently negative and significant. Thus, evidence supports the presumption that French and German civil law countries have less developed financial markets than common law countries. Likewise, countries where the political party in power cannot be seen as a right, center, or left party have a relatively small number of listed domestic companies compared to countries where the right is in power. Contrary to expectations, though, a higher GDP and more financial assistance received from a multilateral organization are associated with a decrease in the number of companies which have shares listed on an exchange. The remaining factors, except for French colonial legacy that has significant effects in almost all the models, are rarely, if ever, linked to listed domestic companies. All in all, four hypotheses out of five proposed for stock exchange development (measured as the number of listed domestic companies) are supported, underlining the importance of state-level variables over and above that of various other factors.

Table 5.7 shows the estimates of a series of seven linear regression models using market capitalization as the dependent variable. According to model 1, the effects of British colonial legacy and years since founding are significantly positive, whereas the effects of religion dummies other and mixed, and the periphery are significantly negative. Other control variables fail to reach statistical significance. Model 2 assesses the impact of judicial independence on stock exchange development, as measured by market capitalization. The result of this analysis reveals that the coefficient on judicial independence is positive but not significant and thus there is no evidence to lend support to hypothesis 1b. Model 3 assesses

Table 5.6. Linear regression analysis of judicial independence

Judicial independence		Model 8	Model 9
Religion			
	Protestant	baseline	baseline
	Catholic	-0.034 (0.085)	-0.030 (0.085)
	Muslim	-0.198* (0.085)	-0.196* (0.085)
	Other	-0.141 (0.080)	-0.138 (0.080)
	Mixed	-0.099 (0.087)	-0.099 (0.087)
British colonial legacy		0.030 (0.047)	0.033 (0.046)
French colonial legacy		0.022 (0.056)	0.027 (0.056)
Legal system			
	English	baseline	baseline
	French	-0.093 (0.054)	-0.095 (0.054)
	German	-0.009 (0.067)	-0.021 (0.067)
	Socialist	0.006 (0.140)	0.002 (0.139)
State age		-0.028*** (0.006)	-0.029*** (0.005)
Years since founding		0.001* (0.001)	0.001 (0.001)
Population		0.214* (0.093)	0.215* (0.099)
Ideology			
	Right	baseline	baseline
	Center	0.008 (0.006)	0.008 (0.006)
	Left	0.008 (0.005)	0.004 (0.005)
	Not fit	0.009 (0.005)	0.006 (0.005)
	Not applicable	0.066** (0.021)	0.057** (0.022)

Table 5.6. (continued)

Judicial independence	Model 8	Model 9
GDP	-0.300** (0.092)	-0.300** (0.098)
GDP per capita	0.304** (0.092)	0.303** (0.098)
GDP growth	0.000 (0.000)	0.000 (0.000)
Trade openness	0.000 (0.000)	0.000 (0.000)
The use of IMF credit	0.001 (0.001)	0.001 (0.001)
World system position		
	Core baseline	baseline
	Semiperiphery -0.233*** (0.050)	-0.229*** (0.050)
	Periphery -0.248*** (0.051)	-0.241*** (0.051)
	Unclassified -0.233** (0.085)	-0.230** (0.086)
Regional adoptions	0.001 (0.001)	0.001 (0.001)
Polity	0.012*** (0.001)	0.012*** (0.001)
State capacity		0.013* (0.006)
No. of subjects	67	67
Number of observations	1383	1319
LR chi2	501.91***	497.27***
df	26	27

* p< .05; **p < .01; ***p<.001.
Standard errors are in parentheses.

the impact of state capacity on market capitalization. As it turns out, the coefficient on state capacity is also positive but not significant and thus there is no evidence to lend support to hypothesis 2b. Model 4 assesses the impact of polity on market capitalization. This analysis shows that the coefficient on polity is negative but not significant and thus there is no evidence to lend support to hypothesis 3b.

Model 5 incorporates all of the independent variables. The full model is consistent with single-variable models as the coefficients on judicial independence, state capacity, and polity are non-significant in the present case too. For this reason, scrutinizing the effects of these factors in groups of two is not needed at this point, apart from the combination of judicial independence and state capacity required for mediation hypothesis (see model 6 below). Model 7 assesses the impact of the interaction between state capacity and polity on market capitalization. This analysis shows that the coefficient on the interaction term is positive but not significant and thus there is no evidence to lend support to hypothesis 4b.

As for an examination of whether judicial independence mediates the relationship between state capacity and market capitalization, I follow four sequential steps delineated earlier in this chapter once more. The first step seeks to establish the link between the independent variable and the dependent variable. In this regard, model 3 has already found that state capacity does not have a direct effect on market capitalization. The second step seeks to detect the presence of association between the independent variable and the mediator. In this regard, model 9 presented in Table 5.6 has already demonstrated that state capacity has a significant positive impact on judicial independence ($\beta = 0.013$, $p < .05$). The next step assesses the presence of association between the mediator and the dependent variable. In this regard, model 2 has already demonstrated that judicial independence does not have a direct effect on market capitalization. Although the available evidence points to little likelihood of mediation now, the possibility of a suppression effect (Conger, 1974) has not been ruled out and the joint influences of judicial independence and state capacity can be explored on the basis of the fourth step. In this regard, model 6 demonstrates that neither judicial independence nor state capacity is a statistically significant predictor of market capitalization. Consequently, I could not identify mediational effects of judicial independence on market capitalization and thus there is no evidence to lend support to hypothesis 5b.

All of the control variables are found to be poor predictors of market capitalization, with the exception of British colonial legacy and years since founding, whose coefficients are consistently positive and significant. The results thus confirm that former British colonies have greater market capitalization than countries that have never been colonized by the British or the French. Also, as expected, stock markets that have been present for longer periods of time have more developed financial markets than newly formed ones. The remaining factors are rarely, if ever, linked to market capitalization save mixed religion,

Table 5.7. Linear regression analysis of market capitalization

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Religion							
Protestant	baseline -1.080 (0.702)	baseline -0.440 (0.693)	baseline -0.813 (0.745)	baseline -0.942 (0.751)	baseline 0.031 (0.716)	baseline 0.000 (0.720)	baseline -0.791 (0.752)
Catholic	-0.882 (0.555)	-0.020 (0.633)	-0.877 (0.617)	-1.304 (0.684)	-0.381 (0.695)	0.065 (0.670)	-1.108 (0.696)
Muslim	-1.292* (0.566)	-0.577 (0.590)	-1.410* (0.596)	-1.638** (0.618)	-0.617 (0.603)	-0.536 (0.607)	-1.501* (0.619)
Other	-2.049** (0.632)	-1.605* (0.743)	-2.287** (0.673)	-2.301** (0.683)	-1.477* (0.734)	-1.361 (0.732)	-2.404** (0.697)
Mixed	1.157** (0.429)	0.967* (0.438)	1.529** (0.453)	1.450** (0.455)	1.039* (0.448)	1.246** (0.439)	1.499** (0.455)
British colonial legacy	0.254 (0.465)	0.049 (0.475)	0.455 (0.480)	0.573 (0.505)	0.906 (0.561)	0.484 (0.488)	0.542 (0.509)
French colonial legacy							
Legal system							
English	baseline 0.484 (0.535)	baseline 0.462 (0.532)	baseline 0.798 (0.559)	baseline 1.016 (0.565)	baseline 0.897 (0.533)	baseline 0.818 (0.534)	baseline 0.938 (0.566)
French	0.607 (0.655)	0.450 (0.661)	0.588 (0.667)	0.774 (0.655)	0.134 (0.666)	0.454 (0.652)	0.572 (0.669)
German	0.121 (0.134)	0.050 (0.134)	0.072 (0.136)	-0.025 (0.146)	-0.084 (0.142)	-0.006 (0.132)	-0.028 (0.147)
State age	0.048** (0.014)	0.056** (0.017)	0.052** (0.017)	0.060*** (0.015)	0.069*** (0.019)	0.063** (0.019)	0.059** (0.018)
Years since founding	0.905 (2.762)	0.349 (2.730)	1.482 (2.933)	2.363 (2.866)	1.759 (2.831)	1.643 (2.813)	2.281 (2.956)
Population							

Table 5.7. (continued)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Ideology							
Right	baseline	baseline	baseline	baseline	baseline	baseline	baseline
Center	-0.067 (0.151)	-0.019 (0.165)	-0.019 (0.183)	-0.055 (0.155)	0.006 (0.190)	0.014 (0.189)	-0.008 (0.185)
Left	-0.031 (0.098)	0.013 (0.110)	-0.021 (0.111)	-0.022 (0.108)	0.050 (0.127)	0.047 (0.124)	-0.022 (0.114)
Not fit	-0.023 (0.115)	-0.043 (0.123)	-0.033 (0.126)	-0.009 (0.123)	-0.026 (0.136)	-0.055 (0.132)	-0.002 (0.131)
GDP	0.123 (2.758)	0.729 (2.752)	-0.429 (2.930)	-1.406 (2.861)	-0.676 (2.858)	-0.538 (2.834)	-1.286 (2.958)
GDP per capita	0.952 (2.731)	0.415 (2.716)	1.493 (2.894)	2.419 (2.825)	1.728 (2.807)	1.652 (2.786)	2.291 (2.918)
GDP growth	-0.011 (0.006)	-0.011 (0.006)	-0.011 (0.007)	-0.013* (0.006)	-0.011 (0.007)	-0.011 (0.007)	-0.011 (0.007)
Trade openness	0.002 (0.002)	0.001 (0.002)	0.003 (0.002)	0.002 (0.002)	0.001 (0.003)	0.002 (0.003)	0.001 (0.002)
The use of IMF credit	-0.006 (0.017)	-0.002 (0.018)	-0.004 (0.019)	-0.015 (0.018)	-0.012 (0.020)	-0.001 (0.019)	-0.017 (0.019)
World system position							
Core	baseline	baseline	baseline	baseline	baseline	baseline	baseline
Semiperiphery	-0.398 (0.382)	-0.143 (0.487)	-0.420 (0.427)	-0.895* (0.425)	-0.363 (0.525)	-0.261 (0.504)	-0.655 (0.467)
Periphery	-1.109* (0.542)	-0.737 (0.604)	-1.254* (0.593)	-1.849** (0.616)	-1.400* (0.639)	-1.054 (0.632)	-1.582* (0.644)

Table 5.7. (continued)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Unclassified	-1.085 (0.629)	-0.617 (0.649)	-1.045 (0.665)	-1.590* (0.692)	-0.969 (0.686)	-0.492 (0.675)	-1.417* (0.700)
Regional adoptions	-0.016 (0.011)	-0.020 (0.012)	-0.024* (0.012)	-0.024 (0.012)	-0.029* (0.013)	-0.031** (0.012)	-0.028* (0.013)
Judicial independence		0.882 (0.728)			1.527 (1.017)	0.474 (0.756)	
State capacity			0.288 (0.183)		0.380 (0.217)	0.327 (0.215)	0.314 (0.187)
Polity				-0.014 (0.019)	-0.054 (0.029)		-0.016 (0.025)
State capacity x polity							0.003 (0.022)
Number of groups	35	32	33	33	30	30	33
Number of observations	550	483	479	507	425	437	467
Wald chi2	630.95***	651.56***	603.95***	616.62***	693.46***	677.21***	604.71***
df	24	25	25	25	27	26	27

* p < .05; ** p < .01; *** p < .001.

Standard errors are in parentheses.

which has significant effects in almost all the models. In a nutshell, none of the hypotheses proposed for stock exchange development (measured as market capitalization) are supported, drawing attention to the fact that different measures of financial development could lead to contradictory conclusions.



6. DISCUSSION and CONCLUSION

From the very beginning, the states figured prominently in institutional scholarship. In particular, the interest shown in their roles as agents and enforcers of the adoption of externally legitimated models has contributed to the body of knowledge in a whole range of areas. Nonetheless, institutional conceptions of the state have been criticized for lack of a sound grasp of its complexities (e.g., Abzug and Mezias, 1993; Carroll et al., 1988) and the pressing need for a detailed analysis of how much progress has been made in the field in this regard is what motivated the present research. So, I began by systematically reviewing the institutional literature on the use of the central themes found in the relevant literatures in political sociology, public administration, and political science, namely on the themes of autonomy and capacity in the statist literature and the theme of goals in the literatures on the public interest and political regimes. My analysis outlined a basic framework used in the study of states and the general directions in which research developed over the long-term. Broadly speaking, the trajectory that emerged can be summarized by three points. First, it turned out that the state was dealt with in the main through considerations of its different aspects' determinants and consequences. Second, it was found that the research scope was confined largely to the conceptual realm; and third, most of the discussions centered around state capacity in the context of the US. Taken as a whole, the results of this systematic literature review reported what has been achieved over time but, more importantly, identified critical gaps in our knowledge and pinpointed areas for improvement. In particular, this study highlighted four main points of concern that merited more scholarly attention. The issues at stake were stated to be conceptual precision, multidimensionality, theoretical mechanisms, and boundary conditions.

In addition to documenting the relative strengths and weaknesses of institutional theory, the literature review served as a basis for a pioneering empirical study presented in a series of three chapters. My aims were twofold: to tackle the aforementioned conceptual and methodological problems that remain unaddressed in institutional research and to contribute to our understanding of adoption and diffusion processes by enabling a more state-centered analysis of possible policy options. Specifically, world stock markets provided the context for the cross-national and longitudinal investigations in this study. I advanced a total of ten hypotheses concerning the impacts of the states on stock exchange adoption and development. All in all, this research supported the argument that the introduction and

implementation of neoliberal policies are not merely explainable by the process of globalization and the key attributes of the states are major determinants of policy choices and outcomes. Briefly, the main findings from this study were as follows. First, judicial independence, state capacity, and polity were independently associated with higher adoption rates. Second, judicial independence and state capacity were independently associated with a greater number of companies which have shares listed on an exchange. Third, polity had additive and moderating but not direct effects on the number of listed domestic companies. Fourth, judicial independence mediated state capacity's relationships with stock exchange adoption and the number of listed domestic companies. Last, there was no observable connection between any of the independent variables and market capitalization. These findings indicated that the study succeeded in achieving its objectives of performing a more fine-grained analysis of the state and capturing a more accurate reflection of its impacts on policy changes. Table 6.1 summarizes my hypotheses and the results obtained.

Major contributions of this work to the institutional literature in general include the following. On a theoretical level, one of the basic principles guiding the development of the research project was the precise delineation of the state's main features as I endeavored to provide a well-founded base for multidimensional models. Empirically speaking, this approach made it possible to more fully explore the connections between state-related constructs and financial outcomes, and helped to show additive, moderating, and mediational effects that would otherwise have gone unnoticed. The study also put emphasis on theorizing about the mechanisms through which different dimensions of the state could affect financial policy and development. Beyond opening up opportunities for further research, this practice facilitated the identification of more complex relationships between the variables involved. For instance, the proposition that democracy should have a moderating influence on the relation between state capacity and stock exchange development (that was subsequently substantiated by evidence) was premised on the findings reported in political science literature that provide insights into democratic processes through which states could utilize important sources of strength to serve the general public good (e.g., Bäck and Hadenius, 2008; Carbone and Memoli, 2015). Thus, the research project uncovered different patterns of relationships between state-level phenomena and financial outcomes on solid theoretical grounds. Additionally, widening the scope of previous research to a larger number of countries was an important focus of this study in light of the conclusions drawn from the review of the literature. The idea was to point out that the key attributes of the states had

Table 6.1. Summary of hypotheses and results

Hypothesis	Theorized relationship	Empirical support
1a	The impact of state autonomy on stock exchange adoption	Yes
1b	The impact of state autonomy on stock exchange development	Yes (using listed domestic companies as a measure of performance)
		No (using market capitalization as a measure of performance)
2a	The impact of state capacity on stock exchange adoption	Yes
2b	The impact of state capacity on stock exchange development	Yes (using listed domestic companies as a measure of performance)
		No (using market capitalization as a measure of performance)
3a	The impact of democracy on stock exchange adoption	Yes
3b	The impact of democracy on stock exchange development	No (using listed domestic companies as a measure of performance)
		No (using market capitalization as a measure of performance)
4a	The impact of the interaction between state capacity and democracy on stock exchange adoption	No
4b	The impact of the interaction between state capacity and democracy on stock exchange development	Yes (using listed domestic companies as a measure of performance)
		No (using market capitalization as a measure of performance)
5a	The impact of state autonomy on the relationship between state capacity and stock exchange adoption	Yes
5b	The impact of state autonomy on the relationship between state capacity and stock exchange development	Yes (using listed domestic companies as a measure of performance)
		No (using market capitalization as a measure of performance)

some bearing on policy adoption or implementation in many different contexts. In the present case, varying degrees of judicial independence, state capacity, and democracy resulted in different outcomes with respect to how soon stock markets came into existence and how well they performed. Such recognition can be seen as a first step towards in-depth analyses of the roles of the state in dissimilar national settings.

Major contributions of this work to the diffusion literature in particular include the following. First, the study provided empirical evidence to support the view that, even after taking account of a collection of domestic and international factors commonly associated with neoliberal policies, the salient features of the state had a significant effect on the formation and development of stock markets. This finding actually ran counter to the arguments in favor of institutional isomorphic processes as the sole determinant of national policy making, pointing instead to the contingent nature of convergence across countries. Put differently, what this study showed was that while international actors set the agenda for stock exchanges by means of coercive, normative, and mimetic pressures, local conditions played a decisive part in ensuring accommodation to externally imposed demands. As discussed earlier, an independent judiciary, state capacity, and a democratic form of government were all contributory factors. At the same time, this research searched for ways in which these characteristics interacted with one another to produce their desired effects. In this regard, evidence emerged of the indirect effects of state-level phenomena, suggesting policy making had become too complex a process to be explained by simplistic hypotheses. The combined effects of state capacity and democracy were a case in point whereby more democratic countries made it more likely that public resources were deployed to increase the number of listed domestic companies. Also, the analyses revealed the sequential nature of the relationship between state capacity and judicial independence, so it was the former followed by the latter that led to the creation of stock exchanges and a greater number of listed domestic companies. These findings clearly highlighted the importance of jointly analyzing the dimensions of the state to gain a better insight into adoption and diffusion processes.

Furthermore, this study proved the need for more research into the implementation phase of the reform process, for the state continued to play a role in the outcomes of a major policy shift. Along this line, I was able to shed some light on how financial development was driven by a different set of dynamics, drawing attention to the fact that the mere existence of a stock exchange in a given country did not automatically lead to a high level

of performance. So, while democracy was directly linked to the opening of stock exchanges, this in itself was not sufficient to give rise to a greater number of listed domestic companies. Instead, it was only when this factor co-occurred with other characteristics of the state (either through additive or interactive effects) that it was found to contribute to the development of stock markets. Present findings also revealed that the effects of these factors on financial development varied by performance measure used. So, all three dimensions of the state had an impact on the number of listed domestic companies, in contrast to no evidence of their linkage to market capitalization. These discrepant results highlighted the fact that market capitalization was determined by different factors, thus justifying the earlier decision to use both indicators. Lastly, this study widened the scope of previous efforts to encompass a large range of settings. This way, I succeeded in taking into consideration cross-national variation in openness and readiness to a change in financial policy, as indicated by a number of different factors such as legal origin and economic development. Incorporation of a diverse group of countries into research in this manner provided good grounds for drawing generalizable conclusions in seeking to trace the global spread of a program of reform.

Borrowing concepts from political sociology, public administration, and political science to examine the possible effects of the state in more detail served to identify a number of factors which were operating against international influences. From this point of view, the present study elucidated key issues relating to financial policy development, as was discussed in this chapter. Nonetheless, much more research is needed at this stage to explore the implications of these new findings. The first step in dealing with matters that require further consideration may involve working out different ways of characterizing the nature of the state. As a matter of fact, no definitive conclusion can be drawn as to which aspects of the state are primarily responsible for different policy paths, which I consider a corollary to the failure of this study to consistently demonstrate that each of the three dimensions has a significant impact on stock exchange adoption and development. As noted earlier, the results obtained by a multivariable model examining the additive effects of the independent variables (showing non-significant positive effects on stock exchange adoption) differ markedly from those obtained by single-variable models (showing positive direct effects). This may well be due to the fact that these factors achieve that effect in isolation, but they do not work together in combination. In a recent study, Hanson (2015) presents supporting evidence for this line of argument, that it is either through state capacity or democracy that improvements are observed in the delivery of public services, but a combination of the two

does not have a synergistic effect on social outcomes. Alternatively, we may explore some other features that determine whether or not national policy making will be in line with most other states' policies. It is conceivable that new factors could come into play to condition the effects of those already proved useful, or they can be expected to play complementary roles in inducing a change of policy. Additionally, any effort to factor in different variables is an attempt at the prediction of as yet unexplained phenomena such as market capitalization.

Overall, a good case can be made for the fact that the issue of in what ways the state influences the determination and implementation of new policies is far more complex and multifaceted than this project has sought to address. However, there is an equally valid argument that the difficulties in yielding consistent results across all the models could have arisen because of measures used rather than conceptual hurdles. Of course, measures of judicial independence, state capacity, and polity come from different sources and deploy analytically distinct constructs, but the fact remains that they overlap to some extent. To take an illustrative example, measures of judicial independence and polity have a common component variable (XCONST) which captures constraints on the chief executive (see Appendix 8.6). While there are reasonable grounds for suggesting that checks and balances on the executive decision-making work to ensure the independence of the judiciary as well as democracy, closely intertwined concepts as measured by multiple-indicator indexes make it difficult to interpret the results from integrative models. An alternative method involves using one or two particularly pertinent indicators making up the composite index. This approach allows researchers to separate the component elements of measures. In this vein, Bäck and Hadenius (2008) only include political rights when making use of a democracy index consisting of two parts, and the stated reason for leaving out the other component, civil liberties, is overlap with measure of administrative capacity. Yet, within the scope of this project, I decided not to exercise that option because none of the hypotheses predict that additive effects will occur. Moreover, all component parts of aggregate measures have been regarded as likely contributory factors to the formation and development of stock markets. In the end, it comes down to a trade-off between the advantages of multidimensionality and the disadvantages of precision (see, for example, Carbone and Memoli, 2015 for criticism directed at Bäck and Hadenius, 2008 for operationalizing state capacity in terms of administrative capacity and dropping the political order element of stateness). This implies that we could only consider the possibility of disentanglement if it flows from the theoretical underpinnings of the study.

This research not only showed that all three dimensions of the state are important in determining financial outcomes but also assisted in evaluating the relative influence of each of these factors. As it turned out, polity had relatively little effect on stock exchange adoption when compared with judicial independence and state capacity. Besides, it had no direct effect at all on listed domestic companies unlike the other two. Some might argue that the Polity data make it harder to find a one-to-one relationship between democracy and such phenomena. The problem lies in the fact that there are multiple ways of obtaining an overall Polity score through different combinations of independent observations of component variables involved (Gleditsch and Ward, 1997). Because of variations within subgroups, it is possible that polities at both ends of the scale had mixed success in establishing and developing stock exchanges. With the benefit of controlling for this heterogeneity, an alternative approach is to assess the effects of the most relevant aspects individually. This would entail exploring the differences in the main drivers of change between countries with identical total composite scores. There is, however, a need to revise some of the key assumptions that underlie work in this area to identify the characteristics which heavily influence policy choices and outcomes. Following from this, a question that has yet to be addressed is whether it was the extent of constraints on the chief executive which made the likelihood of stock exchange adoption and development greater (see Jensen, 2008 for evidence to support such a suggestion). It may also be hard to see the direct effects of democracy if there are other factors such as regime transition and stability in play. The prevailing view is that countries with developed and stable democracies instigate a program of reform more easily than other countries by means of the efficiency of the provision of public goods (see, for example, Clague et al., 1996 for a comparison of the security of property and contract rights under different regimes). So, perhaps it is not being less democratic per se that accounts for being a late adopter or a poor performer, but the recency or frequency of regime change. This means not ruling out the possibility that the research downplays the effects of democracy without making an effort to control for other characteristics associated with regimes.

In conclusion, this study provided a window into how certain aspects of the state were responsible for causing financial divergence between countries in the face of isomorphic pressures to follow an agenda of globalizing. These characteristics do probably influence most areas of national policy making rather than being associated with a specific policy issue, so it is vital that we take them into account in subsequent studies as well. When any

of these characteristics are omitted from studies of policy diffusion, there is a real possibility that the importance of other contextual factors will be overestimated. As well as the necessity for assessing independent effects of the state's main features, I also stressed the need to examine the effects of their interrelationships and interactions so as to measure the likely outcomes with greater precision. The general observation was that this particular set of characteristics help explain stock exchange adoption, and, to a lesser extent, stock exchange development. Suggestions for future research included being open to wider possibilities of developing multidimensional models (first, are there some other characteristics of the state that can influence market capitalization; and second, are there limiting factors on the possible effects of democracy) and the establishing of the links between subcomponents of the focal independent variables and the likely outcomes.



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8. APPENDICES

8.1. The List of Codes and Illustrative Data

Aggregate dimensions	Themes	Selected first-order codes	Illustrative data
External factors as determinants of state autonomy	Attempts of organizations to shape the legal environment	<ul style="list-style-type: none"> Constituency building 	<p><i>York et al., 2016, p. 595-596</i>: Wind advocates switched tactics in 2004, deciding to pursue an RPS by ballot initiative (a direct vote by Colorado citizens) rather than through the state legislature [...] Amendment 37 passed by a 54% vote in November of 2004, making Colorado the first state to create an RPS through a ballot initiative.</p>
Internal factors as determinants of state autonomy	Structure of the state apparatus	<ul style="list-style-type: none"> The number of government tiers 	<p><i>Choi et al., 2015, p. 163</i>: [...] Multiple subnational government tiers introduce higher costs for and greater uncertainty in effective lobbying by firms. Such extra costs and uncertainties may be associated not only with firms aiming to influence public policies at lower administrative tiers but also with those targeting policymaking at higher administrative tiers.</p>
	Actions of the state apparatus	<ul style="list-style-type: none"> The consolidation of power 	<p><i>Goodstein and Velamuri, 2009, p. 492</i>: Autonomy in the postcolonial context may not necessarily be achieved through institutional development and development of an independent</p>

<p>External factors as determinants of state capacity</p>	<p>Organizational forces</p>	<ul style="list-style-type: none"> • Collective action 	<p>bureaucracy but rather through the consolidation of power held by ruling elites. Ruling elites secure autonomy through establishing authoritarian decision-making processes, controlling critical resources (e.g. by rewarding loyal supporters of the regime, securing property rights), and using the state's monopoly on violence to counter efforts within and outside the state to challenge elite power. These actions reinforce dependence on the state and limit the development of other institutions and organizations that, while having the potential to extend state capacity, might threaten state autonomy.</p>
	<p>Institutional forces</p>	<ul style="list-style-type: none"> • Institutional complexity 	<p><i>Micelotta and Washington, 2013, p. 1151: [...]</i> The CUP – as the representative of the regulated professions organized in Ordini – engaged in effortful work to convince the government that (i) the autonomy of professions in matters of reform should have been reinstated. By doing so, regulated professions aimed at regaining their role as primary provider of normative guidelines for professionals and neutralizing the threat of being overpowered by the state; and (ii) the separation between regulated and non-regulated professions should have been reaffirmed.</p> <p><i>Heese et al., 2016, p. 2196:</i> Regulators not only have to contend with their own objective functions, which are complex, opaque, and</p>

	Economic and social forces	<ul style="list-style-type: none"> • Economic development 	<p>expressed in equivocal terms such as maximizing “welfare” outcomes, but they also have to traverse a fine balance between conflicting institutional pressures from a variety of constituents such as business entities, communities, professional agencies, and politicians. Extant literature has examined why organizations decouple from regulatory pressures; we posit that regulators also decouple from their own regulatory policies. We extend theory and offer an alternative form of decoupling to the literature – that is, selective decoupling, which manifests as selectivity in applying rules to organizations whose actions the regulator approves.</p>
			<p><i>Marquis and Qian, 2014, p. 134:</i> During the reform period, there have been significant variations across China in the extent to which regional governments have seized the opportunity to use market mechanisms to develop the local economy, enhance fiscal health, and, correspondingly, enhance development of regional government institutions. The fiscal reforms of the 1980s gave certain economic rights and responsibilities to each government jurisdiction above the village level, thus increasing local and provincial government revenues (Walder 1995). As a result, governments in developed regions have accumulated significant financial resources and have introduced more advanced management techniques, making them</p>

Internal factors as determinants of state capacity	Structure of the state apparatus	<ul style="list-style-type: none"> Fragmentation of state authority 	<p>more likely to have not only the resources but also the expertise to monitor corporate activities (Brandt and Li 2003, Goldstein 1995).</p> <p><i>Luo et al., 2017, p. 322:</i> [...] While the central government shifted priority from an exclusive focus on economic growth to more long-term, balanced economic and social development, as signified by the CSR reporting requirement, some provincial governments still prioritized GDP growth targets, largely ignoring social goals as a result of either local interests or bureaucratic inertia. [...] We show how the fragmentation of the state can lead to unintended consequences of regulations. When conflicting government agendas exist, those firms that the regulations could influence the most are the ones that compromise their implementation.</p>
	Actions of the state apparatus	<ul style="list-style-type: none"> Regulatory threats Regulatory surveillance 	<p><i>Short and Toffel, 2010, p. 386:</i> Although our findings suggest that direct regulatory threats impede successful implementation of self-regulation commitments, we demonstrate that high levels of regulatory surveillance at both the field and organizational levels promote the implementation of self-regulation. Unlike sanctions and threats, surveillance does not appear to dampen normative motivations and thus can be an effective tool not only for deterring harmful behavior but also for enhancing the self-regulatory performance of regulated organizations.</p>

	Judicial, legal, and political forces	<ul style="list-style-type: none"> • Government policy 	<p><i>Wicks, 2001, p. 666-667:</i> Not only was government anxious to support a project like Westray, but it also felt it possessed the necessary regulatory components to safely oversee Westray's operations. There are numerous statutes designed to minimize the effects of the risks associated with coal mining. In hindsight, it appears that the provisions in the <i>Coal Mines Regulation Act</i> and the <i>Occupational Health and Safety Act</i> would have prevented the explosion. Instead, inspectors did not enforce their own recommendations and Westray employees did not follow these guidelines of their own volition.</p>
Organization- or population-level consequences of state capacity	Organizational consequences	<ul style="list-style-type: none"> • Structure 	<p><i>Hinings et al., 2003, p. 16:</i> In 1994, a newly elected provincial government passed legislation replacing over 200 hospital boards, public health boards and nursing home agencies with nineteen Regional Health Authorities (RHAs). These RHAs were set up to control all health services within their geographic region, except for those provided by physicians. When this legislation came into force, all previous health boards were disbanded and assets were transferred to the new RHAs, where appointed board members took over a governance role.</p>
	Ecological consequences	<ul style="list-style-type: none"> • Foundings • Failures 	<p><i>Ingram and Inman, 1996, p. 655:</i> The parks that were established in response to the tragedy of the commons at the falls benefited the</p>

Regional- or country-level consequences of state capacity	Within-country variations	<ul style="list-style-type: none"> • Regional variation 	<p>hotel populations by lowering the failure rate and raising the founding rate. This evidences the potential of institutions to promote the growth of populations by regulating the self-interested action of individual organizations.</p> <p><i>Huang et al., 2017, p. 361:</i> Since the opening up of China in the late 1970s and early 1980s, there have been systematic differences across regions in the development of the legal system and appreciation of formal laws. As a result, the de facto quality of the IPR and legal systems across different regions of China varies significantly.</p>
	Cross-country variations	<ul style="list-style-type: none"> • National variation 	<p><i>Spencer et al., 2005, p. 326:</i> [...] A four-cell typology of capitalist polities [...] categorizes national political institutional structures and their associated policy networks along the dimensions of collective agency (society to state centric) and organization of society (associational to corporatist). These two dimensions delineate four types of national political institutional structures: state corporatist, social corporatist, liberal pluralist, and state nation.</p>
Organization-level consequences of state goals	Organizational consequences	<ul style="list-style-type: none"> • Practice 	<p><i>Zhang et al., 2016, p. 1309:</i> [...] The central government under the Hu Jintao administration (2002-2012) adopted the socioeconomic ideology of building a “harmonious society” which provided a legitimate rationale for the government and government-organized</p>

Country-level consequences of state goals	Economic consequences	<ul style="list-style-type: none"> • Inward FDI 	<p>“nongovernmental organizations” (GONGOs) to pressure firms for donations. [...] Widespread instances of apportionment, imposition, and extortion by government or GONGOs have been well documented in the media. Hence, “charity apportion” or “forced donation” has become a well-known phenomenon in China.</p>
			<p><i>Uhlenbruck et al., 2006, p. 410:</i> Our findings indicate that corrupt governments create informal restrictions to foreign ownership in addition to deterring FDI via legal restrictions to foreign ownership (Delios and Beamish 1999, Delios and Henisz 2000, Rajan and Zingales 2003).</p>

8.2. Measurement of the Dimensions of the State

Reference	Measured dimension(s)	Variable(s)	Description(s)
Chuang et al., 2011	State capacity	<ul style="list-style-type: none"> Number of state nondiscrimination laws 	<ul style="list-style-type: none"> The number of state nondiscrimination laws in year $t-1$.
Wade et al., 1998	State capacity	<ul style="list-style-type: none"> The number of nonlocal prohibitions The number of adjacent states with prohibition 	<ul style="list-style-type: none"> The number of local prohibitions for each focal state subtracted from the total number of state-level prohibitions in force each year. The number of state-level prohibitions in adjacent states.
Galvin, 2002	State capacity	<ul style="list-style-type: none"> Government involvement 	<ul style="list-style-type: none"> The number and types of health-related regulatory bodies operating in various capacities at the federal level.
Heese et al., 2016	State capacity	<ul style="list-style-type: none"> Prosecution 	<ul style="list-style-type: none"> The natural logarithm of the settlement amount per hospital.
Short and Toffel, 2010	State capacity	<ul style="list-style-type: none"> The total Clean Air Act penalties The total number of facilities regulated by the Clean Air Act 	<ul style="list-style-type: none"> The total Clean Air Act penalties that environmental regulators assessed in each state-year. The total number of facilities regulated by the Clean Air Act in each state-year.

Deephouse, 1996	State capacity	<ul style="list-style-type: none"> • Regulatory endorsement • Absence of regulatory enforcement actions 	<ul style="list-style-type: none"> • Regulatory assessment of total capital, 1985-88 and regulatory assessment of tier 1 leverage capital, 1989-92. • Banks not subject to an enforcement action during a year were given a rating of 0; banks under an enforcement action were given a -1.
Desai, 2016	State capacity	<ul style="list-style-type: none"> • Enforcement penalties • Regulatory inspections 	<ul style="list-style-type: none"> • The dollar amount of fines (in thousands) levied against the operator by the regulatory agency during the year. • The number of on-site inspections conducted by regulatory agents at that operator during the year.
Diestre and Rajagopalan, 2011	State capacity	<ul style="list-style-type: none"> • Target industry regulatory sanctions • Home-industry regulatory sanctions 	<ul style="list-style-type: none"> • The total value of environmental fines in target manufacturing industries divided by the number of firms in an industry. • Annual weighted average of the total dollar value of environmental fines per firm in each of the home industries in which a focal firm had activities before 1998.
Shirodkar et al., 2017	State capacity	<ul style="list-style-type: none"> • Institutional imprinting of the MNE's home country 	<ul style="list-style-type: none"> • Six dimensions of governance, i.e. voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption.
Bell, Filatotchev,	State capacity	<ul style="list-style-type: none"> • The strength of foreign IPO home country investor protection 	<ul style="list-style-type: none"> • De jure and de facto aspects of investor protection.

and Aguilera, 2014	State capacity			
Huang et al., 2017	State capacity	<ul style="list-style-type: none"> • De facto IPR quality • De facto legal protection 	<ul style="list-style-type: none"> • The average of the number of patent applications and granted patents (for all firms and organizations) divided by the number of research and development or technical personnel in each provincial-level region in China. • The effectiveness of legal enforcement and fairness of legal administrations in each provincial-level region for the protection of firms and their assets. 	
Sanders and Tuschke, 2007	State capacity	<ul style="list-style-type: none"> • Regulatory legitimization 	<ul style="list-style-type: none"> • Change in German corporate law in 1998 as an indication that the government now sanctioned stock option pay. 	
Luoma and Goodstein, 1999	State capacity	<ul style="list-style-type: none"> • Legal environment • Industry regulatory environment 	<ul style="list-style-type: none"> • A company incorporated in a state with an other-constituency statute coded 1, and a company in a state without such a statute coded 0. • A dichotomous variable, coded 1 for heavy regulation and 0 for less regulation. 	
D'Aunno, Succi, and Alexander, 2000	State capacity	<ul style="list-style-type: none"> • Capital funds for rural hospitals • Reduction in regulation to reduce operating expenses 	<ul style="list-style-type: none"> • Hospital is located in a state with laws that provide capital funds to maintain rural hospitals (1 = yes; 0 = no). • Hospital is located in a state with law to reduce regulations that place financial burdens on rural hospitals (1 = yes; 0 = no). 	

		<ul style="list-style-type: none"> • Capital for rural hospital conversion • Certificate-of-need law (CON) • JCAHO accreditation • Diversification law 	<ul style="list-style-type: none"> • Hospital is located in a state with law that provides capital for rural hospital conversion (1 = yes; 0 = no). • 5-item index: CON covers capital expenditures; CON covers medical equipment purchases; CON covers new services; percentage of hospital requests approved by CON review board; budget size for CON review board; each item ranked from 0 (no CON) to 3 (most stringent requirements) and summed; index ranges from 0 (no CON) to 15 (most extensive regulation). • Hospital has JCAHO accreditation to increase reliability in the production of hospital services (2 = yes); (1 = no). • Hospital is located in state with law that reduces barriers to entry in new services or geographic service areas (1 = yes; 0 = no).
Oliver, 1997	State capacity	<ul style="list-style-type: none"> • Regulatory stringency 	<ul style="list-style-type: none"> • Whether a firm felt that it was overly regulated and whether these government regulations were seen to reduce the firm's ability to operate efficiently and profitably.
Russo, 2001	State capacity	<ul style="list-style-type: none"> • Regulatory climate 	<ul style="list-style-type: none"> • Below-average regulatory climate. • Above-average regulatory climate.
Guillén and Capron, 2016	State capacity	<ul style="list-style-type: none"> • State capacity 	<ul style="list-style-type: none"> • The time-varying "capacity1" measure in the State Capacity Dataset version 0.9 developed by Hanson and Sigman (2013).

Vasudeva, 2013	State capacity	<ul style="list-style-type: none"> • The cumulative count of censorship announcements by the government 	<ul style="list-style-type: none"> • A time-varying count variable that recorded the number of foreign firms censored by the government and hence excluded from the sovereign wealth fund's investment universe.
Jennings et al., 2005	State capacity	<ul style="list-style-type: none"> • The number of new law section births in a given year 	<ul style="list-style-type: none"> • The characterization of 'enactment'.
	State goals	<ul style="list-style-type: none"> • Political control by progressive party 	<ul style="list-style-type: none"> • A dummy variable that was 1 in time periods in which the progressive parties were in office and 0 when conservative parties were in office.
Berrone et al., 2016	State capacity	<ul style="list-style-type: none"> • Government enforcement capability 	<ul style="list-style-type: none"> • The total number of enforcement actions (e.g., fines) taken by the Employee Benefits Security Administration against firms that failed to comply with labor laws (within the boundaries of the metropolitan statistical area) per 1000 firms operating in the metropolitan statistical area.
	State goals	<ul style="list-style-type: none"> • Weak social policy 	<ul style="list-style-type: none"> • Direct actions undertaken by the government regarding income, considering (1) supplements to social security, (2) cash or equivalents given to people in conditions of poverty, and (3) food stamps.
Chung and Beamish, 2005	State goals	<ul style="list-style-type: none"> • Policy restriction on FDI 	<ul style="list-style-type: none"> • A measure of perceived policy barriers to equity ownership by foreign firms (Global Competitiveness Reports, 1986-2001).

		<ul style="list-style-type: none"> • Policy uncertainty between pre-crisis and post-crisis institutional environments 	<ul style="list-style-type: none"> • Policy uncertainty measures taken from Henisz’s political hazard index (1986-2001).
Greenwood et al., 2010	State goals	<ul style="list-style-type: none"> • Regional-national government • Regional government spending on industrial development 	<ul style="list-style-type: none"> • Regional_National_Party_k is coded as 1 when the region k was governed by a regional-national party (otherwise coded as 0). • Spending_k is the percentage of region k’s regional government budget spent in industrial development.
Uhlenbruck et al., 2006	State goals	<ul style="list-style-type: none"> • Pervasiveness of corruption • Arbitrariness of corruption • Home-country corruption 	<ul style="list-style-type: none"> • The extent to which “unofficial payments” are needed to get things done connected with government approvals, permissions, licenses, infrastructure, services, or taxes. • The extent to which the terms of corrupt transactions are predictable and the services or items for which a bribe is paid are usually delivered as agreed. • Transparency International’s Corruption Perceptions Index.
Choi et al., 2015	State goals	<ul style="list-style-type: none"> • Control of corruption 	<ul style="list-style-type: none"> • World Bank control of corruption index. Perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests.

8.3. The List of Articles Explaining the Influence of the State on Organizations

Vermeulen et al., 2007	The influence of governmental policies on new market formation
Campbell, 2007	The influence of state regulations on corporate social responsibility
Luo et al., 2017	The influence of conflicting government pressures on corporate social responsibility reporting
Berrone et al., 2016	The influence of regulative institutions on organizational effectiveness
Oliver, 1997	The influence of regulatory pressures on organizational performance
Haveman, Russo, and Meyer, 2001	The influence of punctuational regulatory change on organizational domains, executive succession, and performance
Polidoro, 2013	The influence of regulatory certifications on rivals' entries into new technical fields
Yiu and Makino, 2002	The influence of regulatory institutions on the foreign entry-mode choice of multinational enterprises
Rodriguez et al., 2005	The influence of government corruption on the foreign entry-mode choice of multinational enterprises
Uhlenbruck et al., 2006	The influence of government corruption on the foreign entry-mode choice of multinational enterprises
Meyer and Nguyen, 2005	The influence of sub-national institutions on entry strategies of foreign investors
Chung and Beamish, 2005	The influence of policy reforms on the characteristics and survival of foreign subsidiaries
Slack and Hinings, 1994	The influence of coercive pressures on the degree of homogeneity of a population of organizations
Galvin, 2002	The influence of governmental involvement on the founding patterns of interest associations

Russo, 2001	The influence of state policies on the founding rates of new organizations
Sine, Haveman, and Tolbert, 2005	The influence of the development of regulative institutions on the founding rates of firms using novel technologies
Eberhart, Eesley, and Eisenhardt, 2017	The influence of regulatory changes on venture bankruptcy, founding, and growth
Eesley, 2016	The influence of institutional reforms on the founding rates of high growth entrepreneurial firms
Wade et al., 1998	The influence of state-level prohibitions on the founding and failure rates of breweries in prohibition-free states
Ingram and Inman, 1996	The influence of government institutions on the founding and failure rates of hotels
Ingram and Simons, 2000	The influence of the state on the failure rates of cooperatives
D'Aunno et al., 2000	The influence of state regulation on divergent organizational change
Carroll et al., 1988	The influence of the structure of state decision making on the organizational structure and behavior of agricultural cooperatives
Short and Toffel, 2010	The influence of the enforcement activities of regulators on the adoption of self-regulatory structures
Muzio and Faulconbridge, 2013	The influence of regulations on the strategies and practices of global professional services firms
Luoma and Goodstein, 1999	The influence of other-constituency statutes on stakeholder representation on boards of directors
Zhou et al., 2017	The influence of state ownership on innovation output

Pahnke et al., 2015	The influence of the state logic on the innovation of young firms
McDermott, Corredoira, and Kruse, 2009	The influence of government support institutions on firm-level product upgrading
Huang et al., 2017	The influence of top-down IPR law reform on firms' innovation and patenting strategies
Hong, Wang, and Kafouros, 2015	The influence of state ownership on the internationalization of emerging market enterprises
Holmes et al., 2013	The influence of formal institutions on inward foreign direct investment
Vasudeva, 2013	The influence of the government's normative pressures on home-country firms' cross-border investment decisions
Diestre and Rajagopalan, 2011	The influence of regulatory sanctions on corporate diversification
Greve and Zhang, 2017	The influence of the state socialism logic on firms' merger and acquisition decisions
Choi et al., 2015	The influence of the structure of political institutions on the effectiveness of corporate political lobbying
Shirodkar et al., 2017	The influence of the nature of regulatory institutions in the home country on cross-border lobbying expenses
Abzug and Mezas, 1993	The influence of state fragmentation on the diffusion of due process protections in the workplace
Greenwood et al., 2010	The influence of regional state logics on workforce downsizing
Decramer et al., 2012	The influence of coercive institutional pressures on the adoption of employee performance management systems
Chuang et al., 2011	The influence of the coercive mechanism on the adoption of same-sex partner health benefits
Özen and Akkemik, 2012	The influence of contradictory institutional logics on illegitimate corporate actions

Lane and Quack, 1999	The influence of regulative institutional effects on the perception and management of risk
Wicks, 2001	The influence of regulative aspects of institutions on organizational crises
Elliott and Smith, 2006	The influence of changes in the regulatory framework on organizational learning from crisis

8.4. Description of the Variables and Data Sources

Variable	Description	Data source(s)
The hazard of stock exchange adoption	A country's instantaneous potential for experiencing the event of interest at time t , given that it has not occurred up to that time.	<ul style="list-style-type: none"> Handbook of World Stock, Derivative and Commodity Exchanges, 1998 Official websites of stock exchanges
Listed domestic companies	The number of companies (including exclusively listed foreign companies) which have shares listed on an exchange at the end of the year.	<ul style="list-style-type: none"> WDI, 2017
Market capitalization	The natural logarithm of the share price times the number of shares outstanding for listed domestic companies.	<ul style="list-style-type: none"> WDI, 2017
Judicial independence	A composite value for <i>de facto</i> judicial independence.	<ul style="list-style-type: none"> Staton et al., 2019
State capacity	An aggregate estimate of the core functions of contemporary states.	<ul style="list-style-type: none"> Hanson and Sigman, 2020
The nature of the regime	An overall Polity score computed by subtracting the autocracy score from the democracy score.	<ul style="list-style-type: none"> Polity IV, 2017
Religion	The predominant religious grouping in a country. Five groups are identified: (1) Protestant, (2) Catholic, (3) Muslim, (4) Other, and (5) Mixed.	<ul style="list-style-type: none"> The CIA World Factbook La Porta et al., 1999

British colonial legacy	Dummy variable coded one for countries that came under the British rule as overseas colonies, protectorates, or mandate territories, and zero otherwise.	<ul style="list-style-type: none"> The CIA World Factbook
French colonial legacy	Dummy variable coded one for countries that came under the French rule as overseas colonies, protectorates, or mandate territories, and zero otherwise.	<ul style="list-style-type: none"> The CIA World Factbook
Legal system	The historical origin of a country's legal system. Five groups are identified: (1) English, (2) French, (3) German, (4) Scandinavian, and (5) Socialist.	<ul style="list-style-type: none"> La Porta et al., 2008 Guerriero, 2016
The length of independent statehood	The natural logarithm of state age computed by subtracting the year of independence from the year of observation.	<ul style="list-style-type: none"> Gleditsch and Ward, 1999 The CIA World Factbook
Years since founding	Time (in years) since the establishment of a country's first stock exchange.	<ul style="list-style-type: none"> Own coding
Total population	The natural logarithm of the number of all residents regardless of legal status or citizenship.	<ul style="list-style-type: none"> WDI, 2017
The political ideology of the government	Party orientation with respect to economic policy. Five groups are identified: (1) Right, (2) Center, (3) Left, (4) Not fit to fall under the first three categories, and (5) Not applicable.	<ul style="list-style-type: none"> Database of Political Institutions, 2020
GDP	The natural logarithm of the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products.	<ul style="list-style-type: none"> WDI, 2017

GDP per capita	The natural logarithm of gross domestic product divided by midyear population.	<ul style="list-style-type: none"> • WDI, 2017
GDP growth	Annual percentage growth rate of GDP per capita based on constant local currency.	<ul style="list-style-type: none"> • WDI, 2017
Trade openness	The sum of exports and imports of goods and services measured as a share of GDP.	<ul style="list-style-type: none"> • WDI, 2017
The use of IMF credit	The natural logarithm of purchases and drawings under Stand-By, Extended, Structural Adjustment, Enhanced Structural Adjustment, and Systemic Transformation Facility Arrangements as well as Trust Fund loans and SDR allocations.	<ul style="list-style-type: none"> • WDI, 2017
World system position	Assignment of countries to world system zones. Four groups are identified: (1) Core, (2) Semiperiphery, (3) Periphery, and (4) Unclassified	<ul style="list-style-type: none"> • Clark and Beckfield, 2009 • Clark, 2012
Regional adoptions	The number of countries that have adopted stock exchanges in a given region in a given year. Seven geographic regions are identified: (1) East Asia and Pacific, (2) Europe and Central Asia, (3) Latin America and the Caribbean, (4) Middle East and North Africa, (5) North America, (6) South Asia, and (7) Sub-Saharan Africa.	<ul style="list-style-type: none"> • WDI, 2017

8.5. The Founding of Stock Exchanges around the World in the Period After 1980

Country	Establishment of the first stock exchange	Re-establishment of the first stock exchange	Data source
Albania	2002		Official website of <i>Tirana Stock Exchange</i>
Algeria	1997		Official website of <i>Algiers Stock Exchange</i>
Angola	2006		Official website of <i>Bolsa de Dívida e Valores de Angola</i>
Armenia	1993		The Handbook of World Stock, Derivative and Commodity Exchanges, 1998
Azerbaijan	2000		Official website of <i>Baku Stock Exchange</i>
Bahrain	1987		Official website of <i>Bahrain Bourse</i>
Barbados	1987		Official website of <i>Barbados Stock Exchange</i>
Belarus	1998		Official website of <i>Belarusian Currency and Stock Exchange</i>
Bhutan	1993		Official website of <i>Royal Securities Exchange of Bhutan</i>
Bosnia and Herzegovina	2001		Official website of <i>Sarajevo Stock Exchange</i>

Botswana	1994			The Handbook of World Stock, Derivative and Commodity Exchanges, 1998
Bulgaria	1914		1929	Official website of <i>Bulgarian Stock Exchange</i>
			1991	
Cabo Verde	2005			Official website of <i>Cabo Verde Stock Exchange</i>
Cambodia	2010			Official website of <i>Cambodia Securities Exchange</i>
Cameroon	2001			Official website of <i>Douala Stock Exchange</i>
China	1921		1990	Official website of <i>Shanghai Stock Exchange</i>
Croatia	1907		1991	Official website of <i>Zagreb Stock Exchange</i>
Cyprus	1993			Official website of <i>Cyprus Stock Exchange</i>
Dominican Republic	1988			Official website of <i>Bolsa de Valores de Santo Domingo</i>
El Salvador	1992			Official website of <i>Bolsa de Valores de El Salvador</i>
Estonia	1920		1995	Official website of <i>Nasdaq Baltic</i>
Eswatini	1999			Official website of <i>Eswatini Stock Exchange</i>
Georgia	1999			Official website of <i>Georgian Stock Exchange</i>

Ghana	1989			Official website of <i>Ghana Stock Exchange</i>
Guatemala	1987			Official website of <i>Bolsa de Valores Nacional Guatemala</i>
Guyana	2003			Official website of <i>The Guyana Association of Securities Companies and Intermediaries Inc.</i>
Honduras	1990			Official website of <i>Bolsa Centroamericana de Valores</i>
Hungary	1864		1990	Official website of <i>Budapest Stock Exchange</i>
Iraq	2004			Official website of <i>Iraq Stock Exchange</i>
Kazakhstan	1993			Official website of <i>Kazakhstan Stock Exchange</i>
Kuwait	1983			Official website of <i>Kuwait Stock Exchange</i>
Kyrgyzstan	1994			Official website of <i>Kyrgyz Stock Exchange</i>
Lao	2010			Official website of <i>Lao Securities Exchange</i>
Latvia	1993			Official website of <i>Nasdaq Baltic</i>
Lebanon	1920		1996	Official website of <i>Beirut Stock Exchange</i>
Lesotho	2014			Official website of <i>Maseru Securities Market</i>
Libya	2004		2012	Official website of <i>Libyan Stock Exchange</i>

Lithuania	1992			Official website of <i>Nasdaq Baltic</i>
Macedonia	1995			Official website of <i>Macedonian Stock Exchange</i>
Malawi	1994			Official website of <i>Malawi Stock Exchange</i>
Malta	1990			Official website of <i>Malta Stock Exchange</i>
Mauritius	1989			Official website of <i>Stock Exchange of Mauritius</i>
Moldova	1995			Official website of <i>Moldova Stock Exchange</i>
Mongolia	1991			Official website of <i>Mongolian Stock Exchange</i>
Mozambique	1998			Official website of <i>Mozambique Stock Exchange</i>
Myanmar	2014			Official website of <i>Yangon Stock Exchange</i>
Namibia	1904		1992	Official website of <i>Namibian Stock Exchange</i>
Nepal	1993			Official website of <i>Nepal Stock Exchange</i>
New Zealand	1983			Official website of <i>New Zealand's Exchange</i>
Nicaragua	1994			Official website of <i>Bolsa de Valores de Nicaragua</i>
Oman	1988			Official website of <i>Muscat Stock Exchange</i>
Panama	1990			Official website of <i>Bolsa de Valores de Panamá</i>

Papua New Guinea	1999			Official website of PNG's National Stock Exchange
Poland	1817		1991	Official website of Warsaw Stock Exchange
Romania	1882		1995	Official website of Bucharest Stock Exchange
Russia	1992			Official website of Moscow Exchange
Rwanda	2005			Official website of Rwanda Stock Exchange
Saudi Arabia	1984			The Handbook of World Stock, Derivative and Commodity Exchanges, 1998
Sierra Leone	2009			Official website of Sierra Leone Stock Exchange
Somalia	2015			Official website of Somali Stock Exchange
Sri Lanka	1985			Official website of Colombo Stock Exchange
Sudan	1994			Official website of Khartoum Stock Exchange
Suriname	1994			Official website of Suriname Stock Exchange
Syria	2006			Official website of Damascus Securities Exchange
Tajikistan	2015			Official website of Central Asian Stock Exchange
Tanzania	1996			Official website of Dar es Salaam Stock Exchange

Trinidad and Tobago	1981			Official website of <i>Trinidad and Tobago Stock Exchange</i>
Turkey	1866		1985	Official website of <i>Borsa İstanbul</i>
Uganda	1997			Official website of <i>Uganda Securities Exchange</i>
Ukraine	1992			The Handbook of World Stock, Derivative and Commodity Exchanges, 1998
United Arab Emirates	2000			Official website of <i>Abu Dhabi Securities Exchange</i>
Uzbekistan	1994			Official website of <i>Republican Stock Exchange Toshkent</i>
Vietnam	1998			Official website of <i>Hochiminh Stock Exchange</i>
Zambia	1993			Official website of <i>Lusaka Securities Exchange</i>

8.6. Component Variables Used to Construct Measures of Judicial Independence, State Capacity, and Polity

Independent variable	Component variables	Data source(s)
Judicial independence (Staton et al., 2019)	Keith	<ul style="list-style-type: none"> Keith, 2012
	Howard-Carey	<ul style="list-style-type: none"> Howard and Carey, 2004
	CIRI	<ul style="list-style-type: none"> Cingranelli and Richards, 2010
	XCONST	<ul style="list-style-type: none"> Marshall and Jaggers, 2010
	CIM	<ul style="list-style-type: none"> Johnson, Souva, and Smith, 2013
	Feld-Voigt	<ul style="list-style-type: none"> Feld and Voigt, 2003
	PRS	<ul style="list-style-type: none"> PRS Group, 2013
	GCR	<ul style="list-style-type: none"> Gwartney and Lawson, 2007
	Administrative efficiency	<ul style="list-style-type: none"> Adelman and Morris, 1967
	Bureaucratic quality	<ul style="list-style-type: none"> International Country Risk Guide
State capacity (Hanson and Sigman, 2020)	Law and order	<ul style="list-style-type: none"> World Bank Country Policy and Institutional Assessment
	Efficiency of revenue mobilization	
	Quality of budgetary and financial management	
	Quality of public administration	
	Fiscal capacity	<ul style="list-style-type: none"> V-Dem v9
	Rigorous and impartial public administration	

	State authority over territory	
	Census frequency	<ul style="list-style-type: none"> • US Census Bureau
	Information capacity	<ul style="list-style-type: none"> • Brambor, Goenaga, Lindvall, and Teorell, 2020
	Military personnel per 1 000 in population	<ul style="list-style-type: none"> • Correlates of War • WDI
	Military expenditures per capita	<ul style="list-style-type: none"> • Stockholm International Peace Research Institute • Correlates of War
	Monopoly on the use of force	<ul style="list-style-type: none"> • Bertlesmann Transformation Index
	Police officers per 1 000 in population	<ul style="list-style-type: none"> • UN Office on Drugs and Crime
	State antiquity index	<ul style="list-style-type: none"> • Bockstette et al., 2002
	Statistical capacity	<ul style="list-style-type: none"> • World Bank
	Taxes on income as % of taxes	<ul style="list-style-type: none"> • International Centre for Tax and Development
	Taxes on international trade as % of taxes	<ul style="list-style-type: none"> • IMF
	Total tax revenue as % of GDP	<ul style="list-style-type: none"> • International Centre for Tax and Development • IMF • OECD
	Weberianness	<ul style="list-style-type: none"> • Rauch and Evans, 2000
Democracy (Marshall)	Competitiveness of executive recruitment (XRCOMP)	<ul style="list-style-type: none"> • Marshall et al., 2017

al., 2017)	<p>Openness of executive recruitment (XROPEN)</p> <p>Constraints on the chief executive (XCONST)</p> <p>Competitiveness of political participation (PARCOMP)</p>	
Autocracy (Marshall et al., 2017)	<p>Competitiveness of executive recruitment (XRCOMP)</p> <p>Openness of executive recruitment (XROPEN)</p> <p>Constraints on the chief executive (XCONST)</p> <p>Regulation of participation (PARREG)</p> <p>Competitiveness of political participation (PARCOMP)</p>	<ul style="list-style-type: none"> • Marshall et al., 2017

