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Institutions and National Development: A Comparative Study

Instituciones y desarrollo: Un estudio comparativo de casos

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Recibido / Received: 28/04/2016

Aceptado / Accepted: 26/08/2016

ABSTRACT

We review the theoretical and empirical literature leading to the “institutional turn” in the economics of development. Sociologists have welcomed this turn as a vindication of their own ideas, but have overlooked two major shortcomings in the economics literature: First, a failure to define “institutions” rigorously and to distinguish them from the real-life organizations that they govern; second, a tendency to use nations as units of analysis in cross-national studies, neglecting intra-national differences. We tackle these limitations through a comparative study of institutions in Latin America and Southern Europe. In total, twenty-nine existing institutions were subjected to year-long study in six countries. Using Qualitative Comparative Analysis (QCA), we examine the combination of causes leading to institutionally adequate and developmentally effective organizations. Differences across countries and among institutions are highlighted and discussed. Implications of the complex causal set leading to effective developmental institutions, as identified by QCA methodology, are examined.

Keywords: *Institutions, development, organizations, qualitative comparative analysis, proactivity*

RESUMEN

Revisamos la literatura teórica y empírica que condujo al “viraje institucional” en la economía del desarrollo. Los sociólogos dieron la bienvenida a este viraje como una reivindicación de sus propias ideas, pero obviaron dos problemas fundamentales en la literatura económica. Primero, fallos al definir las instituciones en forma rigurosa y distinguir las de las organizaciones reales que subyacen a las instituciones; segundo, la tendencia a utilizar la nación como unidad de análisis olvidando sus diferencias internas. Respondemos a estas limitaciones a través de un estudio comparativo de veintinueve instituciones en América Latina y Europa del Sur. Utilizando el método de Análisis Cualitativo Comparado (QCA), examinamos la combinación de causas que producen organizaciones institucionalmente adecuadas y capaces de contribuir al desarrollo. Discutimos las diferencias halladas tanto entre países como entre organizaciones. Finalmente examinamos las implicaciones del complejo conjunto de factores que conducen a instituciones desarrollistas en este grupo de países.

Palabras clave: *Instituciones, Desarrollo, Organizaciones, Análisis Cualitativo Comparado, Proactividad.*

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Sugerencia de cita / Suggested citation: Portes, A, Nava, J. (2017). *Institutions and National Development: A Comparative Study*. *Revista Española de Sociología*, 26 (1), 9-31.

(<http://dx.doi.org/10.22325/fes/res.2016.1>)

The advent of the institutional perspective to the study of national development has revolutionized the field, bringing together the views of the various disciplines concerned with the topic. Henceforth, a common understanding of the role of institutional mechanisms leading to sustained economic growth has been shared by all disciplines, moving them to search for those factors that “make a difference” in producing this outcome (Kohli 1987, 2004; Roland 2004). A necessary logical step in this collective search is a rigorous identification of what institutions are and, at this point, a curious definitional vacuum emerges. Definitions of the concept have been advanced in the past, but they have been simultaneously too numerous and too abstract (Jutting 2003).

Seeking to address this problem, Portes (2006, 2010) examined classic sociological theories to separate the domain of “institutions” from related but different concepts, such as values, norms, and roles. That search led to a definition of institutions as “blueprints specifying relations among role occupants in social organizations” (Portes and Smith 2012, p.4). This distinction between institutions as normative blueprints and the organizations that they underlie was actually anticipated by North (1990). It can be compared with definitions advanced by other authors, such as Grief (n.d.) that bring together, under the same conceptual umbrella, a variety of rather disparate conceptual domains.

Aside from its greater intellectual rigor, the definition advanced by North and by Portes has the advantage of rendering problematic the relationship between institutions and the organizations that they govern. For it is not the case that, once in place, institutional blueprints are followed blindly. Granovetter (1985, 1995) referred to this tension between symbolic institutional blueprints and real practices as the problem of “embeddedness”—that is, the extent to which actual interactions among actors modify or even derail original institutional goals and rules. In his exchange with economist Oliver Williamson, Granovetter (1985, 1990) showed that this problem is present not only in arms-length market exchanges, but also within the hierarchies of large corporations.

A second problem with the present institutional approach to development is the tendency to use nation-states as units of analysis, to the detriment of within-country variations. While for the sake of methodological expediency it may be acceptable to deal with samples of nation-states, the resulting analyses risk tautology. This happens because scores of “institutional quality” assigned to nations are often reputational, that is based on the opinions of experts. These opinions are influenced, in turn, by the level of development already achieved by a country leading to circular conclusions, such that sub-Saharan African countries are less developed than Scandinavian ones because the quality of African institutions is poorer (Nee and Oppen 2009).

In the end, the empirical literature in economics arrived at three elements deemed to be necessary conditions for long-term economic development: a) protection of property rights; b) constraints on the power of the executive; c) absence of vast disparities in incomes per capita. When these conditions are present, sustained economic growth is expected to follow. Helpman concludes his review of the empirical literature on the topic on this note:

Countries that start with similar endowments can follow different developmental paths as a result of differences in institutional structures, because institutions affect the incentive to innovate and to develop new technology, the incentives to reorganize production and distribution in order to exploit new opportunities, and the incentives to accumulate physical and human capital (Helpman 2004, p. 39).

Some sociologists have advanced further our understanding of the role of institutions on national development by arguing that it does not suffice for public agencies to protect property rights or constrain the executive if they do not engage proactively with strategic actors in civil society and in the private economy. Following the lead of economic historian Alexander Gershenkron (1962), this line of thinking asserts that institutions that just stand aside and let private markets work their “magic”, will not lead to developmental take-offs. For this to happen, it is

necessary for the state to promote, finance, and otherwise incentivize investments and technological innovation. The thesis is also grounded on the work of the German economic historian Friedrich List ([1984] 2011) who argued in favor of an interventionist role of the state, at least in the early stages of industrial development. The thesis culminated in Peter Evans' study of economic "take-offs" and unexpected crash-landings in his now classic, *Embedded Autonomy*. (Evans, 1995).

Accepting a rigorous and limited definition of institutions; acknowledging that institutions in specific countries may not be uniform, but can vary in their internal structure and performance; and singling out their proactive capacity to engage with key actors in the private economy as a central element of their developmental potential provides us with a suitable theoretical springboard for the study of reality. This means examining how different types of institutions emerge and with what consequences for economic growth and social equity. This is the framework adopted the present study. Its methodology is presented below after delving at greater length in the relevant literature and outlining the principal hypotheses that can be derived from it.

LITERATURE REVIEW

Although early analyses of the role of institutions for national development can be found in classic works by Gerschenkron, List, and others, the modern economic literature on the topic starts with studies by Greif and North, followed by contemporary ones by Acemoglu and Stiglitz. Greif (1993) emphasized the significance of specific circumstances for institutional development. He analyzed the history of medieval traders in the Mahgreb, attributing their economic success to the invention of a normative mechanism to solve the principal-agent problem in long-distance trade. The solution consisted in the creation and common acceptance of the Merchant's Law that monitored the behavior of trade agents in far off lands and enjoined all merchants to refrain from

doing business with an agent who had violated the trust of one of its members. This collective enforcement of norms proved effective because, outside the Merchants' Guild, there were few economic opportunities for such agents (Greif, 1993; Helpman, 2004, pp. 116-17).

North, on his part, analyzed the construction of institutional mechanisms in historical time, beginning with the implementation of forms of property rights after the Neolithic Revolution. Settled agriculture required a system of such rights. These were originally enforced by the community of growers, but evolved over time into codified laws enforced by state power. In this manner, settled agriculture, property rights, and territorial states grew together. North concluded that institutions represent "any form of constraint that human beings, devised to shape human interaction" (North, 1990, p. 3). The detailed historical analyses by Greif and North proved sufficiently influential to sway the consensus in economics away from capital accumulation and toward codified and enforceable norms as key mechanisms for long-term economic development (Evans, 2004; Rauch, 1995).

These analyses were then followed by a series of studies, historical and contemporary, on the role of a variety of social forces, collectively lumped under "institutions", on national development. Among the most influential is the study by Acemoglu *et al.* (2001) that focused on the path dependence of social structures created by Europeans in their areas of settlement. Colonies where Europeans created permanent foundations developed solid institutional frameworks copied from the mother countries that, in turn, provided the basis for sustained economic growth. Aware of the perennial endogeneity problem between institutions and development, Acemoglu *et al.* instrumented their main determinant —European settler concentration— on prior reported death rates among early colonists, soldiers, and even bishops. They reasoned that areas where high death rates were reported among early settlers because of malaria and yellow fever were confined to an extractive role and that only healthier, temperate ones were deemed suitable for European settlement.

Like almost all studies in this field, Acemoglu *et al.* depended for their measure of institutional quality on reputational indices that assign a single score per country. In their case, they drew on Political Risk Services, Inc. for a measure of ‘average protection against expropriation’, supplemented by a measure of ‘constraints on the executive’ taken from the Polity III data by Gurr (1997) (Acemoglu *et al.* 2001, p. 1378). The industry standard in this field appears to have become the International Country Risk Guide (ICRG) compiled by Knack and Keefer (1995). Another important measure is the Rule of Law index employed, among others, in Dollar and Kray’s (2002) influential study. As Jutting (2003, p.19) notes in his review of this literature: “Nearly all the studies use as a proxy for institutions, variables that measure the quality and performance of institutions rather than the institution itself.”

A second influential line of study focused on colonial legacies, pointing to different cultural and legal traditions that determined the future course of national development. North, Summerhill, and Weingast (2000) contrasted the development of North and South America, noting that differences in systems of governments between the English and Spanish empires and the different demands that they faced helped explain why institutions promoted long-term economic development in the British colonies, but not in the Spanish:

In other parts of Spanish America, the factor endowments were characterized by rich mineral resources and substantial number of natives that could be employed in their extraction. There, the Spanish authorities distributed lands to favorites of the Crown producing large inequalities of wealth and political power, which shaped the evolution of extractive institutions that were not conducive to growth (Helpman, 2004, p. 123).

In comparison, the British colonies of North America had few inhabitants and the soils were more suitable for grain cultivation than for lucrative cash crops such as cotton, coffee, or sugar cane. Accordingly, institutional development took a different turn.

Other authors focused less on resource endowments than on the legal systems adopted in diffe-

rent parts of the world. In their influential study, La Porta *et al.* showed that laws protecting property rights and the quality of their enforcement varied by the legal system adopted in different countries. They concluded that countries with a common law system inherited from the British tradition had better governments —as indexed by the quality of property rights protections and top marginal tax rates— than those that adopted the French civil-law system (La Porta *et al.* 1999; Helpman, 2004, p. 120).

A more nuanced sociological account of the role of institutions was provided by Nee and Opper (2009). After carefully building a Weberian ideal-type of bureaucracy, they went on to argue that it is the quality of this apparatus, not formal legal protections as enshrined in different legal systems that fosters long-term capitalist development. To buttress this argument, these authors also relied on an index of “government effectiveness” compiled by the World Bank (Kaufman *et al.*, 2005). Not surprisingly, African countries, like Nigeria, rank at the bottom of this scale and North European countries, such as the Netherlands and Denmark, at the top. Predictably, the index had a positive “effect” on capitalistic development.

Whether emphasizing colonial legacies, legal systems, or bureaucratic quality, the state of the literature on the role of institutions has two characteristics in common. First, it focuses on nations or entire regions of the world, classifying them in broad strokes; the possibility of sub-regional or within-country differences is seldom taken into account. It is possible, for example, that not all Nigerian institutions are hopeless and that not all Dutch ones paragons of bureaucratic virtue. Second, this literature paints institutions in broad strokes, not delving in detail into their internal dynamics and those features that can make them more or less effective in terms of both rule implementation and effective mobilization of actors in society.

Without doubt, the macro-historical and macro-economic studies comprising the present empirical literature have made major strides in our understanding of institutional factors leading to long-term growth. However, they still leave major questions unanswered. What these are and how

do we go about responding to them are the topics explored next.

DETERMINANTS OF INSTITUTIONAL QUALITY¹

The first problem noted previously —absence of nuance concerning intra-regional and within-country differences in institutional development— can be addressed directly with empirical studies that define institutions, not countries, as units of analysis. The second limitation —lack of attention to the inner-workings of organizations and determinants of their effectiveness— is also addressable by empirical studies that focus on existing organizations. So far, as seen above, the bulk of the literature converges on the idea that “effectiveness” lies in the existence of protection for property rights, their proper enforcement, and limitations on the power of the executive. Logically such institutions approach the ideal-type of bureaucracy, as defined by Max Weber: they must be meritocratic, immune to corruption, and devoid of internal cliques or “islands of power” (North, 1990; La Porta *et al.*, 1999; Nee and Oppen, 2009).

As seen previously, other authors have taken this literature a step further by arguing that “Weberian” institutions do not suffice. Following the arguments of Gerschenkron and List, they assert that developmental institutions must involve themselves with strategic players in society in order to stimulate innovation, protect nascent industries, and guide them toward international competitiveness. Evans labeled this criterion “embeddedness”, although it could be more properly called “proactivity”: it requires organizations to go beyond their institutional remit to engage with key actors in their fields of competence, investing in promising initiatives and even creating them when absent (Evans, 1995; Prebisch, 1964, 1986; Sunkel, 2005).

In order to implement such approach, institutions must possess two additional features: First, they must be technologically advanced and open to innovation. Otherwise, they can neither be alert to

the existence of economic opportunities, nor lead the way in their “incubator” function toward new entrepreneurial ventures. Second, an organization, no matter how well designed and proactive, that lacks backers and sponsors among top officialdom or influential elites is likely to fall prey to powerful interest or confront a class “wall” frustrating its mission. The experiences of numerous failed agrarian reforms in the developing world, as well as the demise of privatization programs confronted by entrenched interests, attests to the importance of top-down institutional protection (MacLeod, 2004; O’Donnell, 1994).

Synthesizing this theoretical literature, it is possible to identify six factors as potential criteria of institutional adequacy and effective contribution to development. Three of these factors are internal to organizations, corresponding to the Weberian ideal-type, and three are external to them:

A. Internal criteria:

- 1) Meritocracy (universalistic criteria in the selection and promotion of personnel).
- 2) Immunity to Corruption
- 3) Absence of entrenched cliques or “islands of power”.

B. External criteria:

- 4) Proactivity toward relevant actors in civil society.
- 5) Technological openness to innovation and flexibility in its adoption.
- 6) External allies in top officialdom and/or dominant classes.

The relative importance of these factors and their interplay are empirical questions, not examined so far in the empirical literature. The purpose of the following study is precisely to cast light on these issues.

RESEARCH DESIGN

Selection of Countries and Cases

To accomplish this goal, the study examined a sample of institutions of national scope in a

¹ This and the following section are based on two prior publications. (Portes and Smith 2010; 2012).

set of less —to mid-developed countries. The sample includes institutions in Argentina, Chile, Colombia, the Dominican Republic, Mexico, and Portugal. These nations span the length of the American continent and include both large and relatively developed countries and those commonly classified as part of the Third World. Chile and Mexico, for example, are members of the Organization for Economic Cooperation and Development (OECD), generally considered a rich country club. Despite many political and economic ups and downs, Argentina still maintains the highest income per capita among large countries in the region. On the other hand, the Dominican Republic is emblematic of the smaller and poorer countries of the Caribbean region. Portugal was included in the sample as a nation whose size and compactness renders it amenable to direct comparison with Latin American countries like Chile and that also provides an upper-bound to the sample in terms of present level of economic development.

We selected institutions of national scope that differed in their functions along an axis that ranges from “primarily economic” to “mostly technical” to “primarily social”. Most of these are state agencies, although they include important private entities, such as the stock exchange and the national energy company. We endeavored to include the same institutions in as many countries as possible, although this was not always possible. While the universe of organizations amenable to study is quite large, we believe that those selected are emblematic of economic, technical, and social functions fundamental for the proper organization and progress of nations. In total, the study collected data on a sample of twenty-nine institutions as follows:

Stock exchanges have been studied in the past as ideal types of unfettered capitalism, evolving in time from closed “gentlemen’s clubs” to regulated entities open to public investment (Weber, [1904] 1949, 1985; Abolafia, 1996). Even small nations currently possess stock exchanges, though they vary greatly in scope and modes of operation. Although private entities, stock exchanges play a potentially strategic role

in economic development as vehicles for capitalizing a wide range of enterprises, both public and private. The extent to which they do so depends, however, on the transparency of their operations and on the trust that companies and investors have in the inviolability of property rights (Sabel, 1994; Hollingsworth, 2002).

Tax authorities underwrite the capacity of states to support themselves and implement policy in the most diverse fields. As Schumpeter (1954), quoting Goldscheid states, the budget is the skeleton of the state stripped of all misleading ideologies. Tax receipts are the fundamental pre-condition for budget planning and its implementation (Velasco, 2008). In the past, many less developed countries financed themselves through a combination of import-export tariffs, external indebtedness, and inflation. A series of global crises have progressively constrained these sources, compelling states to increasingly finance themselves by extracting resources from their own populations. The capacity of tax authorities to do so and to promote a culture of tax payment as a citizenship duty among the public represent key criteria reflecting their institutional quality.

Public Health Systems are redistributive institutions that seek to make the right to health a reality by attending to the needs of the citizenry. In all countries studied, health is enshrined as a constitutionally-guaranteed right and a system of publicly-financed clinics and hospitals has been created to implement it. However, the capacity of the system to deliver is limited by two constraints: First, budgetary limitations, given the restricted financial means of many states (linked, in part, to their low tax receipts) to underwrite redistributive policies. Second, the intrinsic dilemma that the more a public health service succeeds in its mission, for example by reducing infant mortality, the greater the demands placed on it by a growing and aging population. How the system copes with these constraints is the fundamental criterion of its quality.

Postal Systems. The postal system is a traditional public service that has played a fundamental role in national integration in many countries.

From its original function of mail delivery, postal systems have diversified following the pace of technology by incorporating the telegraph, money wiring, parcel post deliveries, and even bank services. Postal systems commonly operate at a loss and, in recent years, their finances have been further compromised by competition from private operators. A number of countries, both advanced and less developed, have opted for privatizing the post with rather mixed results (Cereceda, 2006; Gomes Bezerra, 2013). In one form or another, the postal system continues to be a fundamental public service and its degree of efficiency and honesty is a direct indicator of its role in national development.

Civil Aviation. Airports are the face of a nation and ensuring safe air traffic is a technical function of the utmost importance. Governments can scarcely afford accidents to occur due to the incapacity of their air controllers or obsolescence of their equipment. This suggests *a priori* that civil aeronautics should be an “island of excellence” (Evans, 1989) within the state apparatus. The extent to which this is true is an empirical question. As we shall see, there is significant variation in the extent to which real civil aviation authorities fulfill this technocratic ideal.

Food Security. Insuring the safety of the food supply for the general population is also a vital state function. Lapses in vigilance can result in tragic consequences, as attested by the bovine encephalitis (i.e. “mad cow”) epidemic that affected the United States, Great Britain, and other countries a decade ago and by regular outbreaks of bacterial infections due to poor handling of fresh produce or poor conservation of canned items. Countries dependent on tourism to buttress their economies are particularly vulnerable to outbreaks of *e-coli*, salmonella, and similar bacterial pathogens that can scare away foreign visitors. In the United States, the Food and Drug Administration is entrusted with the safety of the food supply and is generally considered a reliable supervisor. Other countries vary in the quality of their food security apparatus and even the extent to which one exists.

Energy. Access to a reliable energy supply is another major requirement of any modern country.

In the past, the provision of electricity was a state monopoly, but it has been gradually privatized. Advanced countries have increasingly opened the provision of electricity to competition, as well as allowed decentralization of the production of electricity, its distribution via high tension networks, and its retailing. Nevertheless, in most less-developed countries, a single operator generally dominates the field. The quality of the energy supply in terms of its capacity to meet demand, its reliability, and its costs are major criteria for long-term capital investments. Global industrial and commercial corporations commonly base their investment decisions precisely on these criteria (Vaz da Silva, 2014).

DATA COLLECTION

Not all the organizations described above could be studied in every country, either because they did not exist or because it was otherwise unfeasible to access them. In the end, the sample of organizations included numbered twenty-nine; no country had less than four institutions studied and five of those described above were studied in at least three countries, permitting cross-national comparisons. In each country, teams of experienced investigators were assembled and entrusted with intensive analysis of the selected institutions.

Each study lasted one year and encompassed several successive steps: (a) compilation of the legal rules defining the mission and governing the activities of the existing organization; (b) compilation of internal reports and evaluations; (c) compilation of external academic and journalistic reports; (d) interviews with institutional personnel at the levels of top management, mid-level management, and technical personnel; (e) interviews with expert informants; (f) interviews with strategic users of each institutional service (i.e. commercial airlines, pension funds investing in the stock market, mass mail marketers, etc.) For each organization and each country, fifteen to thirty in-depth interviews were conducted, divided about equally between internal personnel at different levels and external informants.

By combining and comparing different sources, investigators were able to arrive at reliable assessments of both institutional determinants and outcomes. These assessments were presented in both qualitative reports and quantitative scores. Scores were assigned for each of the internal or external determinants discussed previously and for the two outcomes of interest —Institutional Adequacy and Contribution to Development. Institutional Adequacy is defined as the extent to which the existing organization complies with the institutional blueprints for which it was created.

Contribution to Development is defined as the extent to which the organization makes an important contribution to national progress in its respective sphere of activity. Investigators assigned scores in two scales: 1) a dichotomous one indicating “presence” or “absence” of each specific dimension; 2) a five-point scale, with higher scores indicating greater membership in the conceptual space defined by each such dimension. Table 1 presents the sample, including the names of institutions, the country, and the date of completion of the respective study.

Table 1. Institutions Included in the Comparative Study, 2006-08

<i>Country/ Institution</i>	<i>Name</i>	<i>Website</i>	<i>Year Report Completed</i>
Argentina:			
Postal Service	<i>Correo Oficial de la República Argentina (CORASA)</i>	www.correoargentino.com.ar	2010
Civil Aviation	<i>Comando de Regiones Aéreas (disbanded)/ Administración Nacional de Aviación Civil</i>	www.anac.gov.ar	2010
Stock Exchange	<i>Bolsa de Comercio de Buenos Aires (BCBA)</i>	www.bcba.sba.com.ar	2010
Tax Agency	<i>Dirección General Impositiva (DGI)</i>	www.afip.gov.ar	2010
Chile:			
Postal Service	<i>Empresa de Correos de Chile (CorreosChile)</i>	www.correoschile.cl	2006
Civil Aviation	<i>Dirección General de Aeronáutica Civil (DGAC)</i>	www.dgac.cl	2006
Stock Exchange	<i>Bolsa de Comercio de Santiago de Chile (BCSC)</i>	www.bolsadesantiago.com	2006
Health System	<i>Complejo Asistencial Barros Luco/ Ministerio de Salud</i>	redsalud.gov.cl	2010
Tax Agency	<i>Servicio de Impuestos Internos (SII)</i>	www.sii.cl	2010
Colombia:			
Postal Service	<i>La Administración Postal Nacional, (Adpostal)</i>	(disbanded)	2006
Civil Aviation	<i>Aeronáutica Civil (Aerocivil)</i>	www.aerocivil.gov.co	2006
Stock Exchange	<i>Bolsa de Valores de Colombia (BVC)</i>	www.bvc.com.co	2006
Health Care	<i>Clínica San Pedro Claver/ Empresas Promotoras de Salud (EPS)</i>	(disbanded)	2010
Tax Agency	<i>Dirección de Impuestos y Aduanas Nacionales (DIAN)</i>	www.dian.gov.co	2010

Table 1. Continued

<i>Country/ Institution</i>	<i>Name</i>	<i>Website</i>	<i>Year Report Completed</i>
Dominican Republic:			
Postal Service	<i>Instituto Postal Dominicano (INPOSDOM)</i>	www.inposdom.gob.do	2010
Civil Aviation	<i>Instituto Dominicano de Aviación Civil (IDAC)</i>	www.idac.gov.do	2010
Health System	<i>Sistema Público de Salud</i>	www.sespas.gov.do	2010
Tax Agency	<i>Dirección General de Impuestos Internos (DGII)</i>	www.dgii.gov.do	2010
México:			
Postal Service	<i>Servicio Postal Mexicano (Sepomex)</i>	www.sepomex.gob.mx	2007
Civil Aviation	<i>Dirección General de Aeronáutica Civil (DGAC)</i>	dgac.sct.gob.mx	2006
Stock Exchange	<i>Bolsa Mexicana de Valores (BMV)</i>	www.bmv.com.mx	2006
Health System	<i>Hospital General Manuel Gea González (HGMGG)</i>	www.hospitalgea.salud.gob.mx	2010
Tax Agency	<i>Servicio de Administración Tributaria (SAT)</i>	sat.gob.mx	2010
Portugal:			
Postal Service	<i>CTT Correios de Portugal</i>	www.ctt.pt	2013
Health System	<i>Hospital de Santa Maria/ Servico Nacional de Saude (SNS)</i>	www.chln.min-saude.pt	2013
Stock Exchange	<i>NYSE Euronext, Lisbon</i>	www.euronext.pt	2013
Tax Agency	<i>Autoridade Tributaria e Aduaneira</i>	www.portaldasfinancas.govt.pt	2014
Energy Company	<i>EDP - Energias de Portugal</i>	www.edp.pt	2013
Food Security Authority	<i>Autoridade de Segurança Alimentar e Economica (ASAE)</i>	www.ASAE.pt	2013

Note: This and the following two tables partially reproduce data presented in prior publications (2011; 2012)

Quantitative scores produced by this methodology can be arranged in truth tables and subjected to analysis employing either qualitative comparative analysis (QCA) or conventional regression techniques. Through this combination, it is possible to carry out a meso-level investigation that takes into account both within-country and inter-institutional variations generally omitted from the past research literature.

RESULTS²

a) General Observations

2 This section is partially based on previously published results. (Portes 2009; Portes and Smith 2010, 2012). The inclusion of Portuguese institutions in this data set is new and leads to different results from those previously published.

Before subjecting the data to quantitative analysis, it is worth examining the general tendencies evident in the pattern of scores assigned to this sample of institutions. Table 2 presents a truth table based on the binary scores assigned by the twenty-nine studies; Table 3 presents a second truth table based on the corresponding continuous scores. Each table is arranged by country and by institutions within countries.

The first tendency worth noting is that it is easier for an organization to be “institutionally adequate” than “developmental”. As seen in Table 2, 76 percent of the organizations studied were ranked as “adequate” (i.e. fulfilling their original institutional blueprints), but only 59 percent were considered to significantly contribute to development. In Table 3, the average score in the continuous theoretic scale

defined by Institutional Adequacy is 3.41; that denoting Contribution to Development, only 3.22. This tendency provides initial support for the Gerschenkron/

Evans argument according to which real developmental institutions must do more than just fulfilling their original blueprints.

Table 2 Truth Table of Institutional Adequacy and Contribution to National Development (Binary Scale)^a

<i>Country/Institution</i>	<u>DETERMINANTS</u>						<u>RESULTS</u>	
	<i>A. Meritocracy</i>	<i>B. Immunity to Corruption</i>	<i>C. No "Islands of Power"</i>	<i>D. Proactivity</i>	<i>E. Technological Flexibility</i>	<i>F. External Allies</i>	<i>I. Institutional Adequacy</i>	<i>II Contribution to Development</i>
Argentina:								
Postal Service	0	0	0	1	1	1	1	0
Civil Aviation	0	0	0	0	0	0	0	0
Stock Exchange	0	1	0	1	1	1	1	0
Tax Agency	1	0	0	1	1	1	1	1
Chile:								
Postal Service	1	1	1	1	0	0	1	1
Civil Aviation	1	1	1	1	1	0	1	1
Stock Exchange	1	1	1	1	1	1	1	1
Health Care System	1	1	1	1	1	0	1	1
Tax Agency	1	1	0	1	1	1	1	1
Colombia:								
Postal Service	0	0	0	0	0	0	0	0
Civil Aviation	1	1	1	0	1	0	1	0
Stock Exchange	1	1	1	0	1	1	1	0
Health Care System	0	0	0	0	1	0	0	0
Tax Agency	0	0	0	1	1	0	0	0
Dominican Republic:								
Postal Service	0	0	0	0	0	0	0	0
Civil Aviation	1	1	1	1	1	1	1	1
Health Care System	0	0	0	0	0	0	0	0
Tax Agency	0	0	1	1	1	1	1	1
México:								
Postal Service	0	0	0	1	0	1	0	1
Civil Aviation	1	1	1	0	1	0	1	0
Stock Exchange	1	1	1	1	1	1	1	1
Health Care System	1	1	1	1	1	1	1	1
Tax Agency	0	1	1	1	1	1	1	1
Portugal:								
Postal Service	0	1	0	1	1	0	1	1
Stock Exchange	1	1	1	1	1	1	1	1
Health Care Service	0	0	0	1	1	0	1	1
Tax Agency	1	1	1	0	1	0	1	0
Energy Company	1	1	1	1	1	1	1	1
Food Security Authority	0	1	1	1	1	1	1	1

Table 3. Truth Table of Institutional Adequacy and Contribution to National Development (Continuous Scores)¹

<i>Country/Institution</i>	DETERMINANTS						RESULTS	
	<i>A. Meritocracy</i>	<i>B. Immunity to Corruption</i>	<i>C. No "Islands of Power"</i>	<i>D. Proactivity</i>	<i>E. Technological Flexibility</i>	<i>F. External Allies</i>	<i>01 Institutional Adequacy</i>	<i>02 Contribution to Development</i>
Argentina:								
Postal Service	2	1	2	3	4	4	3	2
Civil Aviation	2	2	2	1	2	1	2	1
Stock Exchange	3	3	2	4	3	3	4	2
Tax Agency	4	1	3	4	5	5	4	4
Chile:								
Postal Service	4	3	4	5	3	2	4	5
Civil Aviation	3.5	4	3	4	5	3	5	4
Stock Exchange	4	4	3.5	5	4	5	4	4
Health Care System	3.5	3.5	2.5	3.5	2	1	4	3.5
Tax Agency	4	4	2.5	4	5	4	3.5	4
Colombia:								
Postal Service	2	2	3	2	2.5	1	1	1
Civil Aviation	4	3	3.5	2	5	2.5	4	3
Stock Exchange	4	3.5	3.5	2	3.5	4	4	2
Health Care System	2	2	3	2	4	3	1	1
Tax Agency	2	1	2	4	4	2	2	2
Dominican Republic:								
Postal Service	1	1	2	2	2	2	2	2
Civil Aviation	3.5	3.5	3.5	5	3.5	4	4	4
Health Care System	1	2	1	2	2	1	1	2.5
Tax Agency	3	3	4	4	5	4	4	4
México:								
Postal Service	1	2	1	3.5	1	3.5	1	3.5
Civil Aviation	4	3.5	4	1.5	3.5	1.5	4	2.5
Stock Exchange	4	3.5	3.5	3.5	5	3.5	4	4
Health Care System	4	3	4	4	4	3	4	4
Tax Agency	2	4	5	4	5	3	4	4
Portugal:								
Postal Service	2	3.5	1	4	4	2	4	5
Stock Exchange	5	5	5	4	5	4	5	3.5
Health Care Service	1	2	1	4	3	1	2.5	3
Tax Authority	4.5	4	4	3.5	4.5	3	4	3.5
Energy Company	4.5	4.5	4	5	5	5	5	4.5
Food Security Authority	1	5	5	5	4	4	5	5

Note: "Entirely outside the conceptual set defined by the variable." 2 = "More outside than inside." 3 = "Neither." 4 = "More inside than outside." 5 = "Entirely inside."

Second, scores on the six hypothesized determinants of developmental organizations are consistently lower for organizations dedicated to provide services to the general population than for economic organizations. Zeroes denoting “absence” in Table 2 are more common for public health services and postal systems than for stock exchanges, tax authorities, or energy companies. There is also a close overlap of this gap with the private vs. public dimension, as private agencies (i.e. energy companies, stock exchanges) are more likely to garner high scores on both scales than public institutions.

Third, there are systematic disparities across countries. Looking at the right-most columns of both tables, we find that institutionally adequate and developmental organizations are most commonly present in Chile and Portugal; most commonly absent in Colombia and the Dominican Republic, with the other countries in-between. Such differences agree with expectations in the development literature that have singled out Chile as the “success story” in Latin America and that generally classify southern European countries, including Portugal, as less advanced than in northern Europe but more so than those in Latin America (Wormald and Brieba 2012; Portes and Margues 2015). These differences are not reputational, but emerge from detailed analysis of a sample of existing institutions in each country. These preliminary observations serve as a framework for a systematic analysis of the two truth tables.

b) Binary Scores

Scores in Table 2 can be analyzed through QCA using Boolean algebra (Ragin 1987; 2008). Rows in this table represent actual data for each institution studied and logical combinations of determinants and outcomes. With six determinants, there are 2^6 or 64 possible logical combinations. A count of non-redundant rows in the table indicates that less than 20 such combinations exist in reality³.

3 The non-existing logical combinations are known as “remainders”. Their treatment is governed by the theoretical requirements of the analysis. In some cases, it may be assumed that, had such cases existed in reality, they would bring about the relevant outcome. The more conservative approach is to assume that non-existent com-

Boolean analysis proceeds by listing the combinations that produce the outcome of interest. Focusing on the first outcome —Institutional Adequacy— we see that practically all existing combinations produce it. These combinations are known as “primitive terms”. In Boolean algebra, the absence of a cause has the same logical status as its presence. Absence is denoted by lower capital letters and presence by capitalized ones. The six criteria in Table 1 are represented by letters A to F and the combinations bringing about institutional adequacy (IA) can thus be represented by the following equation:

$$IA = abcDEF + aBcDEF + AbcDEF + ABCDeF + ABCDEf (2) + ABCDEF (6) + ABcDEF + ABCdEf (2) + aBcDEf + abcdEf + aBCDEF (1)$$

The plus symbol in Boolean algebra stands for the logical operator “or” and the multiplication symbol for “and”. Figures in parenthesis indicate the frequency with which each logical combination appears in the data; they are omitted for combinations appearing only once. QCA methods do justice to the combinatorial character of social causation by recognizing that combinations of determinants rather than single predictors are often required to bring about a certain outcome. Boolean minimization also allows simplification of this initial solution on the principle that, if a determinant is present in some causal paths but absent in others, it is irrelevant in causing the phenomenon of interest (Ragin 1987: 93).

Based on this principle and proceeding one step at a time, it is possible to reduce the above equation to a single criterion: E (Technological Openness and Flexibility). A look at the primitive terms in equation I indicates that E is present in all causal paths, but one⁴. Technological flexibility

binations would not bring about the effect. This is the approach adopted in this analysis. See Ragin, 2008.

4 The dialogue between theory and data facilitated by QCA is relevant at this point, because it sends us back to the original institutional study to identify reasons for the single exceptional outcome. That study —of the Chilean postal system— indicates that its management was very open to technological innovation, including the automation of services. This innovation was fiercely opposed, however, by the postal unions that feared significant job loss. Such was the reason for the negative score assigned to the institution on this determinant. See Cereceda, 2009.

thus emerges as sufficient and necessary to produce institutionally adequate organizations:

$$IA = E \text{ (II)}$$

This unexpected result must be tempered by the observation that the causal expression DEF is present in all but three of the observed causal paths. Hence, the combination of the three external determinants (proactivity, technological flexibility, external allies) is “usually sufficient” to bring about the effect. Theoretically, this result is opposite to the orthodox position that privileges internal “Weberian” criteria as the truly important factors producing institutional adequacy.

A similar set of analytic steps can be taken to identify determinants of the second outcome—developmental institutions (DI). This analysis yields ten causal paths with one (ABCDEF) having a frequency of six cases and another (aBCDEF) of two. Boolean minimization subsequently, yields two principal determinants: D (Proactivity) present in 100 percent of the solutions and E (Technological Flexibility) present in 80 percent. Again we see that external factors, not those internal to the institutions, play the primary role in bringing about the outcome. According to these results, an institution may be more or less meritocratic and more or less immune to corruption without these characteristics being decisive in making it developmental. Supporting the Gerschenkron/Evans line of argument, the key factor is Proactivity: organizations capable of engaging with relevant publics in their sphere of action and mobilizing them effectively appear to be those most able to produce effective results. Taking into account the role of Technological Flexibility (E) in the prior analysis, we settle for the following final solution:

$$DI = DE \text{ (III)}^5$$

5 This solution covers all but two cases. One of these is the previously mentioned Chilean postal system. The second is the Mexican postal system (SEPOMEX) that received scores of 0 in most determinants and was even ranked as institutionally inadequate (see Table 2). A reading of the relevant institutional report indicates that the contradiction between an organization being unable to meet its institutional mandate and yet ranked as “developmental” is due to its history. The investigator wished to pay credit to SEPOMEX’ major developmental

c) Continuous Scores

The continuous scores in Table 3 can be analyzed by QCA on the basis of fuzzy-set algebra (Ragin 2000, 2008). The continuous scale used for this analysis overcomes the theoretical constraint of binary rankings; in addition, the method also allows for the identification and separation of necessary and sufficient conditions. Necessary conditions are always present when the outcome is positive, but they may be present without the outcome materializing. Fuzzy sets translate this criterion into the expectation that scores in the predictor will be higher or equal than the outcome. Intuitively, membership in the theoretic set defined by the effect is a subset of that defined by the cause (Ragin 2000).

Sufficient conditions always lead to the effect, but the latter may also occur in their absence due to other causal factors. The translation in fuzzy set algebra is the expectation that scores in the cause be equal or lower than in the effect. Sufficient conditions thus create a “floor” for the outcome, assuming that the memberships in them are subsets of the latter. Figure 1 clarifies these relationships⁶.

A final consideration is the distinction between consistency and coverage. Consistency refers to the extent to which a cause fulfills the criteria for either necessity or sufficiency; coverage refers to the number of cases covered by that cause. The distinction is important because a causal path can be always right in terms of fulfilling relevant criteria, but apply only to a few cases. QCA provides formulas of coverage for different solutions of necessity and sufficiency (Ragin 2008).

contributions in the country’s past, despite its present deplorable state (Lujan Ponce 2009). With these two exceptions aside, the causal solution in equation III covers 100 percent of the cases.

6 The formula for necessity is: $Y \sqsubseteq X = \min (X_i) / Y_i$. Where X is the determinant, Y is the effect, and “min” is the smaller of the scores on either for each case. The formula for sufficiency is the obverse: $X \leq Y = \min (X_i) (Y_i) / X_i$. Earlier work based on data from the same study made use of a prior method, simply counting the number of deviations from the criteria for necessity and sufficiency without taking into account the magnitude of deviations from these criteria. The present analysis corrects these results on the basis of the indicated equations.

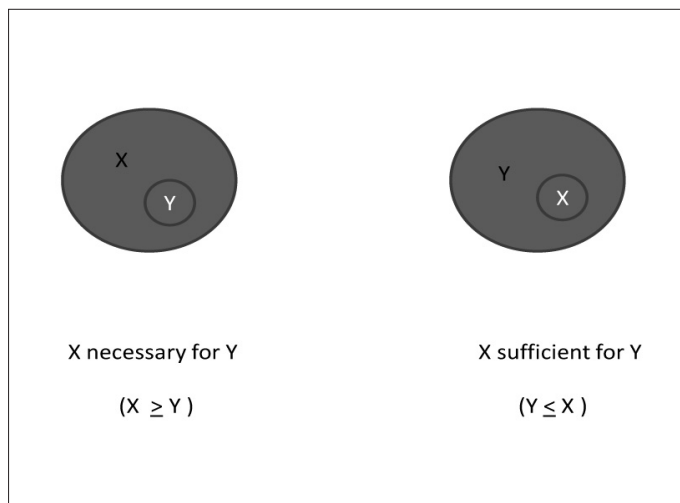


Figure 1. Necessary and Sufficient Conditions in Fuzzy-set Algebra

Table 4 presents the fuzzy-set solutions for necessary conditions for the two outcomes of interest; Table 5 presents the corresponding results for sufficient conditions. The analysis of scores assigned to the twenty-nine cases identifies two principal necessary conditions for institutionally adequate organizations: Technological Flexibility (E) with almost perfect consistency (.97/100) and Proactivity, with a score also exceeding 90 percent consistency. E is, of course, the same determinant identified in the prior Boolean analysis of the same outcome and the causal combination DE was the solution adopted for a developmental institution. Given the similarity with prior Boolean results, we adopt a single term as the necessary condition for institutionally adequate organizations:

$$IA = E \text{ (Necessary) (IV)}$$

Table 4 also shows that the same determinants are major prerequisites for the emergence of a developmental institution. Proactivity is the most consistent condition, followed by technological flexibility. However, coverage drops to below 80 percent for the latter predictor and joining both with the logical operator “and” does not change this result⁷. Therefore, we settle for a single determinant:

$$DI = D \text{ (Necessary) (V)}$$

The parallel analysis of sufficient conditions in Table 5 yields a novel result: fuzzy-set scores in this case revindicate the role of internal predictors, neglected up to this point. Indeed, the principal sufficient cause for institutional adequacy in this case is Meritocracy (A), followed closely by the other two internal criteria. The combination of the three covers 83 percent of the cases and, for this reason, is adopted as the preferred solution:

$$IA = ABC \text{ (Sufficient) (VI)}$$

This result, combined with the previous analysis of necessity, produces the final solution for an institutionally adequate organization:

$$IA = ABCE \text{ (Necessary and Sufficient) (VII)}$$

This solution is consistent with expectations in the organizational and development literatures reviewed previously about the importance of “Weberianess”. Without the three internal criteria of institutional quality defined previously, plus openness to technological innovation, it is seemingly impossible for an organization to fulfill its original institutional mandates.

is equal to the lower coverage of its individual components.

⁷ According to fuzzy-set rules, coverage of a complex term

Table 4. Necessary Conditions for Institutional Adequacy (IA) and Developmental Institutions (DI)

Necessary Conditions

$$(Y \leq X) = \mathcal{E} \min (Xi) (Yi)/\mathcal{E}Yi$$

Institutional Adequacy (IA)			Developmental Institution (DA)	
A. Meritocracy	82.5 / 95.5 = .864		74.5 / 93.5 = .797	
B. Immunity to Corruption	82 / 95.5 = .859		78 / 93.5 = .834	
C. No "Island of Power"	82.5 / 95.5 = .864		76 / 93.5 = .813	
D. Proactivity	88 / 95.5 = .921		89.5 / 93.5 = .957	
E. Technological Flexibility	92.5 / 95.5 = .969		84.5 / 93.5 = .904	
F. External Allie	75.0 / 95.5 = .785		75.5 / 93.5 = .807	
<i>Consistency</i>			<i>Coverage</i>	
IA	D	E	D	E
	.921	.969	.876	.853
DI	D	E	D	E
	.957	.904	.891	.779

Table 5. Sufficient Conditions for Institutional Adequacy (IA) and Developmental Institutions (DI)

Sufficient Conditions

$$(X \leq Y) = \mathcal{E} \min (Xi) (Yi)/\mathcal{E}Xi$$

Institutional Adequacy (IA)					Developmental Institution (DA)			
A. Meritocracy	82.5 / 85.5 = .965				74.5 / 86.5 = .871			
B. Immunity to Corruption	82 / 86.5 = .948				78 / 86.5 = .902			
C. No "Island of Power"	82.5 / 87.5 = .943				76 / 87.5 = .868			
D. Proactivity	88 / 100.5 = .876				89.5 / 100.5 = .891			
E. Technological Flexibility	92.5 / 108.5 = .853				84.5 / 108.5 = .779			
F. External Allies	75.0 / 85.5 = .882				75.5 / 85.0 = .888			
<i>Consistency</i>					<i>Coverage</i>			
IA	A	B	C	ABC	A	B	C	ABC
	.965	.948	.943	.943	.833	.828	.833	.828
DI	B		D	BD	B	D	BD	
	.902		.891	.891	.834	.957	.834	

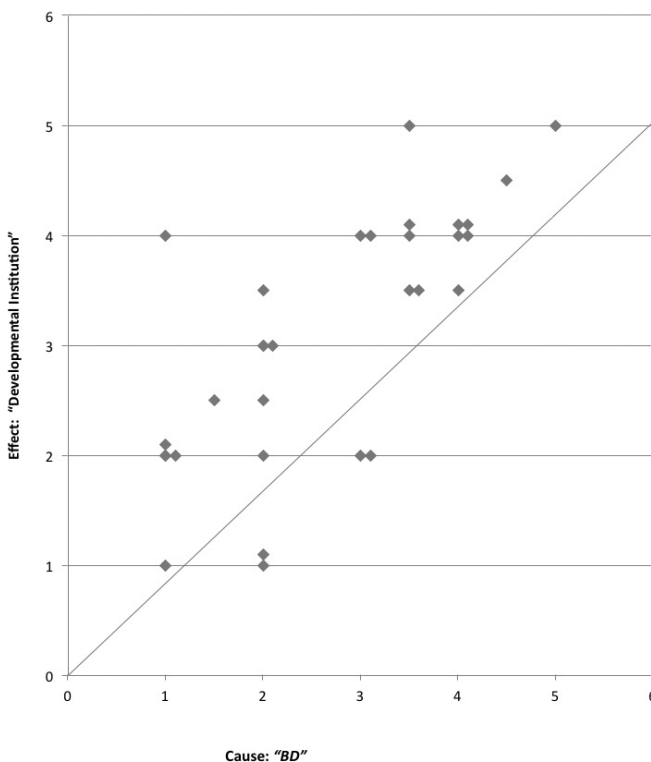


Figure 2. Institutional Membership in the Causal Combination “BD” and Development Institutions

The capacity to make an effective contribution to development is determined differently. The principal causes in this case are Immunity to Corruption (B) and Proactivity (D). The latter criterion was already identified as the necessary condition for the same outcome. The combination of both predictors covers over 80 percent of the cases and is hereby adopted as the final causal solution for a developmental institution:

$$DI = BD \text{ (Necessary and Sufficient) (VIII)}$$

Figure 2 maps scores for effect and causes in equation VIII in two-dimensional space. This graph shows the concentration of cases in the upper-left triangle corresponding to an appropriate sufficient condition⁸. This final solution

implies that an institution need not be fully “Weberian” in order to make a significant contribution to development. It may not be very meritocratic and may even harbor internal cliques; yet, to the extent that it overcomes the stigma of being “for sale” to external bidders and that it adopts a proactive stance toward its relevant publics, it can be rated as developmental. This solution again supports the theory about the importance of proactive institutions able to influence civil society and mold the national economy. The solution is theoretically satisfactory and is given additional weight by holding across a sample of diverse organizations in six different countries.

⁸ The same result is obtained when the final solution for institutional adequacy (ABCE) is graphed in two-dimen-

sional space. This graph is omitted for space reasons. See Ragin (2000; 2008) for an explanation of this graphic solution.

C) Robustness

As a test of robustness, we analyzed the data with the alternative analytic tools provided by conventional regression analysis. Binary scores in Table 2 can be modeled through a logistic or probit routine, while continuous scores in Table 3 can be regressed on predictors with ordinary least squares (OLS). For this analysis, we employed as predictors the six hypothesized causes, plus dummy variables representing each country. The models are nested, with the first model including only the six hypothesized determinants and the second adding the countries.

For space reasons, we omit the presentation of these results, but summarize them here⁹. Logistic regressions of binary scores ran into difficulties because of the perfect correspondence between several predictors and the two outcomes. The final models that did converge identified technological flexibility (E) as the single significant predictor of Institutional Adequacy, corresponding to prior Boolean results. The OLS analysis of continuous scores ran normally and registered several significant findings. Institutional Adequacy was determined primarily by Immunity to Corruption followed by Meritocracy in a pattern paralleling that emerging from the fuzzy-set analysis. There were no significant national effects indicating that, once the six hypothesized criteria are taken into account, differences between countries disappeared.

Developmental Institutions were accounted for in this analysis by a single predictor—Proactivity. No other factor came close to significance and, once this determinant was taken into account, only one nationality effect (Colombia) remained marginally significant. Proactivity accounts for 81 percent of variance in this dependent variable. Combining both sets of results, we conclude that an institutionally adequate and developmental organization is brought about by a combination of Immunity to Corruption and Proactivity. This solution is, of course, identical to the final one arrived at by QCA (equation VIII). The absence of other predictors from this solution, in particular the marginal effect of meritocracy and the dearth of significant national

differences are noteworthy. The next section illustrates and clarifies these patterns.

The Winning Combination for a Developmental Institution (BD): Selected Examples

1) *The Mexican Tax Authority* (SAT in its Spanish acronym) was ranked as an institutionally adequate and developmental institution despite many defects, in particular its absence of meritocracy:

Compared to other Mexican institutions, SAT's sins against meritocracy may look rather trivial. But when measured by SAT's own standards—and by the requirement of an institution that must extract resources from an uncooperative population and particularly from a powerful and often hostile economic elite—those features seem far more serious (Velasco 2012, p. 148).

The most flagrant failure of SAT lies in the non-implementation of the civil service rules established since the inception of the institution. Since 2007, SAT employees have been submitted to ambitious "360-degree" evaluations. But, by the time of this study, there was no system to sanction or reward employees according to their performance. Therefore, talented functionaries tend to remain only a few years in the SAT and then move on to the business sector where their expertise becomes much better rewarded (Velasco, 2012).

Despite these shortcomings, SAT was ranked as a developmental institution, mainly because of its increasing probity and productivity. SAT was the best-ranked Mexican organization in the study in terms of Immunity to Corruption. Opinion surveys conducted by SAT itself show that taxpayers' perceptions of corruption within the agency have decreased significantly in recent years. Interviews with people who interact regularly with the Service confirm that corruption has largely been stamped out. To reduce that risk, SAT has adopted a highly centralized structure: its sixty-six local offices are internally segmented, with each segment directly connected to the respective central authority; in none of these offices is there a local chief who coordinates all segments and would thereby be vulnerable to bribing (Velasco, 2012, p. 149).

⁹ Results are available from the authors upon request.

The evaluation of SAT as proactive is grounded on a series of new strategies that include the implementation of risk-management techniques (useful for deciding which taxpayers to audit); the creation of a Large Taxpayers Unit (to deal with tax-avoidance strategies by the most economically powerful actors); the creation of a taxpayer assistance unit to promote voluntary compliance; and the outsourcing of selected services. Despite all these improvements, the report notes that the agency still has not been able to gain access (and tax) the country's vast informal sector nor overcome the resistance to taxation by the most powerful members of the Mexican economic elite (Velasco 2012:153).

II) *The Chilean Civil Aviation Directorate* (DGAC in its Spanish acronym) has long been run by the Chilean Air Force which appoints its principal managers. The agency's high scores in terms of fulfilling its institutional blueprints and making a contribution to development are due to its stellar performance that includes repeated annual records of zero accidents per 100,000 civilian flights and the endorsement of the U.S. Federal Aviation Authority that ranks the DGAC as a "Category I" agency. Its top management speaks of making the DGAC an institutional leader and an example, not only within the Chilean state, but for all of Latin America (Thumala 2009).

The organization's strengths lie in its immunity to corruption, which would seriously jeopardize safety standards, and its strong proactive stance that includes close relationships with commercial airlines and other strategic clients. Its principal shortcoming is the absence of meritocratic recruitment and promotion. This stems from the agency's inability to fire deficient or poorly qualified personnel once they become protected by the Chilean civil service statute. It is also based on its role of recruiter of retired Air Force officers, sidelining potentially better qualified civilian personnel. As Thumala (2009:184) reports: "All departmental directors of the DGAC are former or active members of the Air Force, and at the vice-director general level, all are former members."

Nonetheless, the institutional report concludes that these limitations do not fundamentally impair the fulfillment of the agency's mission since it

always hires specialized and well-trained personnel. Hence, whether employing allegedly less costly retired military officers or those selected via examinations, all chosen candidates appear to possess the requisite minimum qualifications. Yet, the dominance of military personnel in an agency performing civilian functions does raise questions about the presence of an entrenched island of power - a military caste - within the agency (Thumala 2009; Wormald and Briebea 2012:73).

III) *The Food and Economic Security Authority of Portugal* (ASAE in its Portuguese acronym) is a relatively young agency, having been established in 2006. Until 2013, it was led by the same inspector general. In addition to detailed institutional ethnographies, the Portuguese study added surveys of each organization's personnel focused on evaluations of the agency on the six criteria listed previously. To ensure truthful answers, respondents were guaranteed anonymity¹⁰.

There was near-unanimity among survey respondents that ASAE is *not* a meritocratic institution. Meritocracy has been weakened by the suspension of new hiring and freezing of merit promotions due to the severe economic crisis suffered by Portugal since 2008. In addition, according to well-placed informants, one-third of the personnel are "parachutists" (*paraquedistas*) that were not hired through regular meritocratic channels. Thus, a majority of surveyed personnel (62%) agreed that "appointments and promotions in ASAE depend essentially on personal relations" (Contumelias 2013, pp. 30-31).

In contrast, there is near-universal agreement that the agency is immune to corruption. The perfect score assigned to ASAE on this criterion is due to major efforts by the leadership to prevent and, when necessary, punish corrupt acts by its inspectors. The charismatic inspector-general that led ASAE since its creation has paid particular attention to this feature. Thus, not one informant, internal or

¹⁰ Eighty-seven percent of ASAE's personnel responded to the institutional survey, yielding a sample of 256 cases. Despite the 13 percent attrition rate, the sample can be considered representative of all ASAE's personnel, as non-responses were mostly random. This section draws from the final report on the study in Portugal (Portes and Marques 2015).

external, reported a single case of corruption. According to the national director of operations: “I don’t know of any case of corruption; this is the result of setting up mechanisms to prevent it since the beginnings of the agency” (Contumelias 2013, p. 31). Further confirmation comes from the survey of its personnel: only 2 percent of respondents disagreed with the statement, “Most of ASAE’s personnel are immune to corruption.”

ASAE is also proactive in two related ways. First, it has been an effective police agency that fulfills its mission even against opposition from powerful actors. Indeed, the agency has been publicly criticized for its excessive zeal. It has closed fashionable restaurants and, on at least one occasion, it shut down the dining facilities of Parliament on the eve of a reception to a major foreign dignitary because of sanitary infractions. This stance has guaranteed that the food chain and all establishments serving the general public, as well as tourists, are quite safe in Portugal.

The agency has also been proactive in a second way by engaging merchant associations and consumer organizations in a regular dialogue, listening to their complaints and demands and educating the public on various safety norms. ASAE possesses its own digitalized information system GESTASAE, and supports a website accessible to all food wholesale firms, grocery and restaurant operators, and the general public. In 2012, this site registered over 300,000 visits. Accordingly, 72 percent of respondents in the institutional survey agreed with the statement, “ASAE seeks to be up-dated with respect to the use of new technologies and all innovative procedures” (Contumelias 2013, p. 35).

CONCLUSION

The advent of the “institutional turn” to the study of development represents a welcome change for a field previously dominated by culturalistic explanations of underdevelopment or by an exclusive economic focus on savings rates and capital accumulation. The major contribution made by scholars such as North, Grief, and Stiglitz is that they succeeded in shifting attention away from such concerns

and toward the character and quality of national institutions. Sociologists and other social scientists have welcomed these developments as a vindication of their own ideas, but have thus far failed to pay attention to the shortcomings in the institutionalist literature that followed these pronouncements.

These shortcomings stem from a failure to arrive at a rigorous definition of the concept of institution and at reliable measurements of it. When institutions can be anything from cultural values to the central bank, it is impossible to cumulate reliable knowledge. Furthermore, a single-minded focus on nations as the units of analysis obscures attention to within-country differences in the character of organizations and their internal structure.

The study of real institutions summarized in this paper demonstrates that it is possible to transcend such limitations and arrive at a more nuanced assessment of institutional quality, as well as systematic comparisons within and between nations. The study sought to steer a mid-course between cross-national studies using countries as units of analysis and detailed ethnographies of single agencies or organizations. Such meso-level focus has two important advantages: it overcomes the unrepresentativeness of single-case studies, as well as the untenable assumption that countries can be represented by a single score. The difficulty of a mid-level comparative analysis is the time and effort required to conduct detailed investigations of a number of institutions in different countries. This represents a major undertaking. The payoff is the ability to carry out systematic inter-institutional and inter-country comparisons. In our case, a clear divide emerged between primarily economic and private institutions vs. public ones dedicated to the general welfare. Similarly, a clear rank-order also appeared among countries, signaling the differential quality of their institutions.

The use of QCA methodology allows the analyst to sift through what otherwise would have been an unmanageable amount of data in order to identify causal combinations that make a difference. The principal lesson coming out of the analysis is that institutionally adequate organizations—those that comply with their original blueprints—come about through a different set of causes than effective developmental ones. This is worth remarking upon, as the

emphasis on “Weberianness” in the past institutional literature may come at the expense of creating organizations that actually make a difference in the pursuit of sustained national progress.

The analysis of differences in this sample of institutions yielded another important lesson, namely that it is possible to rapidly enhance quality and performance when vital interests of the state are at stake. The consistently high scores assigned to tax authorities in various countries reflect the operation of this principle.¹ Tax authorities were traditionally dormant or corrupt institutions in many countries; governments financed themselves through customs receipts, foreign indebtedness, and currency printing (i.e. inflation). It took a series of major economic crisis to bring this system to an abrupt end, forcing governments to look for other sources of finance.

Such experiences, repeated in almost all countries, demonstrate that when the survival of the state is at stake, decisive and effective measures can be taken to improve the quality of key institutions. As the analysis also shows, no such luck accompanied the evolution of agencies providing welfare to the general population, in particular the public health system and the postal service. In several countries studied, these turned out to be “orphan” institutions, deprived of the necessary resources and left to fend for themselves without support of top governmental authorities. The fate of these agencies reflects well the institutional weakness of these countries, while pointing to the necessary steps to overcome their present condition.

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