Recessions and Normative-Mimetic Isomorphism

in Worldwide States Structures, 1970-2013

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The prediction of isomorphism is a central principle of sociological institutional theories. Most empirical studies following this prediction consider the cross-national diffusion of abstract cultural norms or organizational scripts. This study, instead, reverts to the classic understanding of isomorphism as declining variation in organizational forms and focuses on the political field. It engages an unsettled, theoretical debate regarding isomorphism in core state structures, by considering worldwide convergence in government cabinet size and expenditure levels. Using a new dataset covering 187 independent states between 1970 and 2013, we assess the extent and determinants of β -convergence – i.e. a negative relationship between size at t-1 and growth rates. Descriptive results indicate a moderate but robust degree of worldwide, β -convergence in cabinet size and expenditure levels. Convergence is, furthermore, produced by catching up of countries with small cabinets and low expenditure and catching down of countries with large cabinets and high expenditure. In the second part of the paper, we assess the mechanisms of convergence. Multivariate results suggest that state isomorphism has a normative-mimetic foundation. Coercive pressures exerted by powerful IGOs and pure, normative pressures by INGOs do not accelerate convergence. Yet countries in recessions display significantly higher convergence rates in cabinet size and expenditure levels. This is consistent with the argument that, given the global norm that states have to deliver economic growth, economically underperforming governments are specially pressed to model their state structures after common worldwide configurations.

The prediction of *isomorphism* understood as a decreasing variation – or increasing homogenization – in institutional configurations across nation-states is a central principle of sociological institutionalism. Fuelled by this prediction and the consideration that convergence occurs mainly through diffusion (Meyer, Boli-Bennet and Chase-Dunn 1975: 236), a burgeoning, cross-discipline literature examines the cross-national *diffusion* of institutions (Gilardi 2012; Schofer, Hironaka, Frank et al. 2012; Simmons, Dobbin and Garret 2008). Accordingly, we thus now have a much more complex understanding about the conditions that facilitate the spread of state organizations, constitutional principles, and concrete public policies, than about the degree of the degree of state *isomorphism*.¹

Yet diffusion and convergence are not coterminous. Diffusion is a non-sufficient cause of convergence. For instance, in a continuous distribution, diffusion of an extreme, minority case produces dimorphism. This means that diffusion and isomorphism should be analyzed through distinct analytical lenses and that we can directly assess the possibility of worldwide isomorphism in key state dimensions. Following this reasoning, this study fills this gap in the comparative, institutionalist literature by focusing on two concrete questions: Have government cabinet sizes and overall expenditure levels converged worldwide in the last decades? If so, what country-level conditions facilitate isomorphism in these two dimensions?

Systematic examination of worldwide state convergence is long overdue due to substantive socio-political and theoretical reasons. As sentiments of worldwide, human commonness have intensified, interest in worldwide trends and convergence processes continues to grow. In addition, contemporary social and political theory displays a lively

¹ For exceptions on isomorphism in developed countries, Cao (2010), Holzinger et al. (2006), Schmitt and Starke (2011).

and empirically unsettled debate regarding the extent of worldwide state isomorphism. Despite profound differences in their assumptions and core principles, modernization, world society, and neorealist theories share a general prediction of global convergence in political institutional structures. In the other camp, world system and historical institutionalism theories predict a divergence in political institutional configurations. The general expectations of 'convergenists' and 'divergenists', together with the mechanisms outlined by the former have not been tested at a worldwide scale yet.

We contribute to the scholarship on worldwide isomorphism through an analysis of the size of government cabinet and overall state expenditure. Government cabinet size indicates, essentially, the number of ministries and, thus, captures state *extensive* power through the number of areas of social life it regulates (Meyer, Boli-Bennett and Chase-Dunn 1975: 239). State expenditure captures state *intensive* power through its power visà-vis society. Using an innovative dataset of cabinet size in all 200 independent states between 1970 and 2013 and state expenditure in 187 countries between 1980 and 2013, we assess the extent and country-level constraints of isomorphism through the principle of β -convergence. We define β -convergence conventionally (Barro and Sala-i-Marti 1992) as a gradual undermining of deviant configurations, which is reflected in a negative relationship between cabinet size (state expenditure) at t₋₁ and cabinet (expenditure) growth rates.

Our argument is that worldwide cabinets and expenditure levels display a moderate but statistically significant degree of β -convergence. Overall convergence occurs mainly through the catching up of countries with rather small cabinets (lowest expenditure) and catching down of countries with rather large cabinets (highest expenditure). Regarding country-level conditions that shape convergence rates, the

evidence does not provide robust support to the expectation that coercive and direct, normative pressures cause global, institutional isomorphism. In contrast, the results are consistent with a normative-mimetic explanation of state isomorphism. In recessions, governments cannot fulfill the global norm of providing constant increases in affluence. This compels governments with outlier cabinet sizes and expenditure levels to reduce their overall deviation, contributing to overall isomorphism.

1. Globalization and Convergence in Political Institutions

The possibility and causes of worldwide policy convergence and isomorphism in state structures have motivated extensive theoretical work in the social sciences. We, conventionally, define policy convergence as "growing similarity of policies over time" (Holzinger and Knill 2005: 776) and state isomorphism as growing resemblance among state organizational units over time (DiMaggio and Powell 1991[1983]: 66). Although classical social theory only made tangential references to policy convergence (Weber 1978[1922]), this theme gained prominence in the post-WWII period when modernization theory predicted emphatically worldwide institutional homogenization. New contributions occurred in the seventies when different approaches to globalization presented opposite predictions in relation to convergence in state structures and in the nineties when historical institutionalism reacted to globalization theories (for reviews, Drezner 2001; Drori 2008). As a result, a lively and multidisciplinary debate exists in the social sciences between elaborate models arguing in favor and against policy convergence (see Section 2).

The empirical literature on policy convergence – not to confuse with the work on policy diffusion – has began to test these predictions with mixed results. Put simply, this research does not allow us to adjudicate firmly between the convergence and persistent

differences perspectives. In a 2005 review of 74 quantitative studies, Heichel, Pape and Sommerer conclude that "nearly half of the sample (33 studies) claimed to find convergence whereas only 15 reported a lack of convergence or divergence. A large number of studies (26) arrived at more ambiguous results by detecting limited convergence" (2005: 824). Summarizing conclusions of a special issue on convergence in *Journal of European Public Policy*, Jordan states that "the striking point which clearly emerges from this particular collection of studies is just how little policy convergence there is" (Jordan 2005: 947; also Guillén 2001: 247). Still, the robustness of results seems to hinge on the policy field and the indicator of convergence. Studies on social and citizenship policies report unabating cross-national differences in several key policy outputs (Koopmans, Michawloski and Waibel 2012; Montanari 2001: 888; Schmitt and Starke 2011: 120; Starke, Obinger, and Castles 2008: 996). But recent work on environmental regulation and economic/trade policy provides conclusive evidence of increasing homogenization (Cao 2009: 1,107; 2012: 397; Holzinger, Knill, and Sommerer 2008: 583).

Beyond documenting the degree of convergence, recent studies studies explore the conditions that facilitate decreasing similarity. These studies concur that, more than domestic-based factors, embeddedness in the global economic and political order increases convergence towards an average standard or other countries' policies. Using dyadic data, three works highlight the role of inclusion in IGO networks. Countries sharing higher number of IGO memberships, especially if these organizations are well-resourced, tend to have lower differences with respect to environmental and trade policies and overall trade expenditure (Cao 2009; 2012; Holzinger, Knill, and Sommerer 2008; also Vatter, Flinders and Bernauee 2014). Regarding integration in global economic markets, countries with

similar export profiles (Cao 2012) and more trade openness (Jensen 2011; Schmitt and Starke 2011) display higher rates of policy convergence.

Despite its valuable contribution, this empirical research has three important limitations, which hamper our overall understanding of longitudinal changes in crossnational policy dissimilarity. First, most studies actually studying state convergence focus on affluent democracies and the last two decades (Cao 2010; Heichel, Pape, and Sommerer 2005: 13; Holzinger et al. 2006; Knill 2005; Koopmans, Michalowski, and Waibel 2012; Marsh 2008; Schmitt and Starke 2011). To our knowledge no study has yet examined the extent and moderators of β -convergence in worldwide, political institutions. Although this overrepresentation of affluent democracies can be accounted by limited, historical and worldwide data on policy outcomes, it has undesirable implications. It may lead to an underestimation of, both, initial policy differences and overall convergence levels. More analytically, results could be sensitive to the limited number of countries cases (usually, 20 to 60) and brief time span (usually, 5 to 20 years) of most studies. An exclusion of developing countries also impedes testing major predictions of the modernization and world society approaches that could shed important light in the decision-making process of these countries (see Section 3).

Second, our knowledge of convergence has been hampered by the common conflation in globalization research of *convergence* and *diffusion* (Boxenbaum and Jonsson 2008). Much of the empirical research inspired by early new-institutionalist theories of isomorphism (DiMaggio and Powel 1991[1983]; Meyer and Rowan 1977) has been only concerned with diffusion under the assumption that diffusion uniformly produces

convergence.² For instance, Meyer et al. (1997: 152-153) characterize "expanded human rights" and "expansive environmental policies" as instances of "observed isomorphisms". Yet, diffusion constitutes a necessary but not sufficient condition of convergence (Bennett 1991: 220). Diffusion only produces convergence if it involves (a) the elimination of a categorical option or (b) in continuous distributions, the undermining of extreme positions. Diffusion of (a) non-predominant, categorical options and (b) in continuous distributions, extreme, non-predominant options, actually produce *divergence* or *dimorphism* in the population. Only when a given policy is predominant or as predominant as others can diffusion produce convergence. This makes "a clear separation of diffusion from convergence (...) of paramount importance" (Gilardi 2012: 454); they are simply conceptually different principles. Diffusion involves the dissemination of concrete policy scripts across countries and convergence involves cross-national reductions in policy dissimilarity. The conflation of diffusion and convergence has been particularly consequential for sociological institutionalism, because, despite its deep interest in isomorphic processes, it has prevented the launch of a research program on convergence proper.³ Diffusion and convergence should, therefore, be analyzed through different analytical lenses.

Third, available research has not benefited from recent conceptual and methodological contributions in econometric analysis of convergence. As Heicher et al.

² Several factors help explain the fact that theories of isomorphism led to a research program on diffusion. First, early organization theory (Hawley 1968: 334) closely identified convergence with diffusion. Second, early new institutionalist work displays certain ambiguity into what is expected to converge: organizational models with environmental norms versus organizational models among each other.

³ A simple bibliographic analysis of three flagship journals in sociology (*American Journal of Sociology, American Sociological Review* and *Social Forces*) support this statement. Many more articles published since 2005 include the concept "policy diffusion" (15) than the terms "policy convergence" (3) or "policy isomorphism" (3).

(2005) point out, most publications only consider convergence from a population perspective through longitudinal declines in the overall institutional variation in the population – also known as σ -convergence –. It, thus, ignores other relevant forms of convergence like catching up processes – also known β -convergence.⁴ This is particularly unfortunate, because, as an analytical strategy of isomorphism, β -convergence has important advantages over σ -convergence. As Plümper and Schneider (2009) demonstrate, β -convergence approaches are less sensitive to sample specifications and allows researchers test theoretical predictions of contributing factors to convergence in a multivariate setting.

Responding to these limitations and seeking to advance our understanding of organizational isomorphism and policy convergence in broad geographical terms and medium-long temporal perspective, this study examines worldwide quantitative convergence in two core dimension of modern states: state extensive and intensive power. Extensive power refers to its capacity to rationalize different dimension of the poliyy. This form of power is operationalized through government cabinet size that Meyer, Boli-Bennett and Chase-Dunn (1975: 239) define as a reliable indicator of "the extension of state power into arenas of social life". Intensive power refers to the states' power vis-à-vis society. Following convention, we operationalize the latter through the public expenditure as a percentage of the GDP. By assessing these two, highly consequential but different dimensions of state structuration, the analysis produces a more fulsome depiction of worldwide state isomorphism.

⁴ For exceptions on advanced democracies, see Jensen (2011) and Schmitt and Starke (2011).

2. Theories of Institutional Convergence and Divergence

The recurring theme of institutional convergence has been approached from widely different perspectives in social theory since the end of WWII. It has led to a multidisciplinary and dynamic debate in which no single theory should be given prominence. Seeking to reflect this diversity, in this section we summarize the five most recognized theoretical approaches to state isomorphism. Three of them predict the existence of convergence and address distinct mechanisms: modernization, macro-realism and world society theories. Two other ones argue for the persistent diversity in state structures: world system and historical institutionalist approaches.

2.1. Convergence Approaches

Although widely criticized in contemporary social theory for its functionalism and overdeterminism, modernization theory deserves recognition in a review of convergence theories, for establishing the conceptual foundation and core predictions that remain untested. This theory was first to define institutional convergence and posits that asymmetric, cross-national modernization triggered unforeseen events that have produced a worldwide homogenization in economic, political and social institutions (Apter 1965[1969]; Horowitz 1966[1972]; Parsons 1977: 228-229). To modernization theorists emerging individualism and curiosity contributed to industrialization in Western countries. The industrialization and bureaucratization of these countries, furthermore, improved living conditions and facilitated self-realization dispositions that laid at the basis of a popular demand for more rationalization, activating a virtuous circle of modernization in Western countries.

Non-Western countries, in this view, then, sought to emulate the achievements of Western nations by launching ambitious programs of modernization. In the absence of any alternative domestic actor with sufficient capacity to kick-start modernization, "government becomes the strategic instrument of development, and the result is a high degree of governmental regulation of social life" (Apter 1969[1965]: 66). Modernizing states, then, set the goals of establishing (a) economic growth as the paramount societal objective and (b) material conditions that could achieve productivity increases (Parsons 1977). To this end, political elites in these countries expanded massively the state administrative machinery – including infrastructural projects, new social welfare programs, strengthened security forces, and compulsory education programs. Since many of these programs implicitly attempt to overturn the social structure – substituting elites with traditional authority for elites with legal-technical authority – the process, moreover, commonly involves heavy loads of coercion and repression (Horowitz 1966[1972]). In sum, modernization theory argues that, as modernizing countries seek to catch up in socioeconomic standards and develop extensive state apparatuses – akin to those already in place in modernized countries –, worldwide state structures become isomorphic.⁵

If modernization theory attributes state isomorphism to a country-bound search for efficient political institutions, world society theory attributes it to the institutionalization of normative scripts in the supranational cultural order. The world society approach stems from new institutionalist argument that mature organizational fields include taken-forgranted (and non-rational) understandings that create "an inexorable push towards

⁵ In the words of Kerr, "industrial systems, regardless of the cultural background out of which they emerge and the path they originally follow, tend to become more alike over an extended period of time; systems (...) where the state, the enterprise or association, and the individual all share a substantial degree of power and influence over productive activities" (1969: 296).

homogenization" (DiMaggio and Powell 1991[1983]: 64; Meyer and Rowan 1991[1977]). Applying this principle to the political order, world society theorists posit that a series of norms on appropriate state structures have become entrenched in the global cultural sphere in late modernity. These norms include general state goals, policy scripts, rationalized organizational models and, even, definitions of legitimate actorhood. Generally accepted by professionals and international organizations (IOs), these global standards are carried into domestic arenas with major institutional implications. Facing these pressures, state actors react by conforming to and enacting these rules in the hope of increasing the state's internal and external legitimacy, leading to worldwide isomorphism in state structures (Meyer 2000; Meyer, Boli, Thomas, and Ramirez 1997).

Within this framework, several rules in world society combine to set a cultural environment favorable to statism and state structuration. The state – and the executive power – is the only appropriate actor to govern the polity and regulate collective problem (Boli-Bennett 1980; Kim, Jang, and Hwang 2002). Its main goals consists in promoting economic prosperity and social justice, with the latter understood as a constant increase in individual rights (Thomas and Meyer 1984: 470). Moreover, rationalized planning through the creation of differentiated bureaucracies is the main acceptable 'solution' to new social problems (Meyer 2000: 165; Meyer, Drori, and Hwang 2006). These principles integrate in a normative package of expansionary state jurisdiction and augmented state resources that legitimate increasing political rationalization of social life. Hence world society theory predicts an average expansion of worldwide state structuration.

More important for our purposes, world society theory also predicts that these these normative understandings should foster state isomorphism. Some – mostly Western – countries have historically demostrated intense commitment to these conventional

understandings, which has been manifested in their state structures. As these norms and organization scripts institutionalize at the global cultural order, states with lower fitting to cultural environment attempt to increase their legitimacy by pursuing significantly faster state espansion, contributing worldwide convergence. As a result, "nation-states exhibit a great deal of isomorphism in their structures and policies" (Meyer, Boli, Thomas, and Ramirez 1997: 152; also Boli and Thomas 1999: 2), which should also affect the government cabinet size and expenditure levels.

Neorealist theory in international relations also predicts a global convergence in institutional structures. Yet according to this approach homogenization occurs mainly through coercive pressures. To neorealist theory the global sphere is defined by the presence utility-maximizing actors and pervasive power inequalities between states and international relations (Waltz 1999). Hegemonic states and allied international organizations actively design domestic policy institutions consistent with their interests and aimed at perpetuating global political stratification (Owen 2002). They then rely on their superior bargaining power to impose their policy preferences on other states (Martin and Simmons 2002; Stone 2004). Given global power asymmetries, weak and dependent states commonly deem themselves compelled to agree to deep policy and state reforms in exchange for a modicum of the extensive financial or military resources or indivisible common goods controlled by dominant global actors. These negotiations result in legally binding agreements, which require implementation, driving state structures across the world in consistent directions. Applying these principles, to a founding father of this approach, "under the protection of American military power, globalization proceeds relentlessly" and "globalization means homogenization" (Waltz 1999: 694).

So far most neorealist research regarding homogenization revolves around the role of the International Monetary Fund (IMF) and the European Union (EU). In its relationship with developing countries, the IMF has relied extensively on a conditionality strategy – i.e. linking loans or financial support to substantial policy reforms –, combined with extremely rationalized policy analysis to promote determinate policy packages. It has "marshaled the idea of policy convergence across countries as the most effective way to fight financial turbulence in financial markets" (Polillo and Guillén 2005: 1774). It has, moreover, advocated for policies consistent with the "Washington Consensus" (Simmons, Dobbin, and Garrett 2008), which includes call for privatization, deregulations and streamlining of state structures. Although the terms of the terms of IMF programs are not made public for confidentiality reasons, we have indicators that IMF officials and its sister organization the World Bank have promoted and pressed governments to establish small cabinets under the rationale that small cabinets help concentrate limited state capacity (World Bank 1997: 158) and contain budget deficits (Woo 2003: 416). In a similar vein, the EU has also used coercion conducive to policy homogenization. This is most clear in the case of ascending and full-member countries, which need to accept the EU acquis communitaire that restricts the types of goals and programs to be pursued by the state. Due to a combination of these coercive pressures through activities of major IGOs, neorealist scholars predict convergence in worldwide state structures.

2.2. Divergence Approaches

Although convergence approaches are dominant in the academic debate on the outcomes of globalization (Robertson 2001: 462), they have faced opposition by advocates of increasing institutional diversity. In fact the prediction of divergence has gained salience

in the recent scholarship (e.g. Beckert 2010; Held, McGrew, Goldblatt, and Perraton 1999: 27). This section considers two main divergence approaches: world systems theory and historical institutionalist theories.

Like realism in international relations, world system theorists stress that the world order is riddled with inequalities, although world system theory traces these inequalities to global social class relations and draw opposite expectations. To Wallerstein and associates (Chase-Dunn and Grimes 1995; Wallerstein 1974), the world economy has grown increasingly integrated under the leadership of capitalist classes in core states since the sixteen century and now constitutes a single unit with an intense division of labor between three main zones. Core states specialize in capital-intensive, high-productivity businesses that yield high profits. Peripheral and semi-peripheral states, instead, specialize in laborintensive production, which given intense global competition, reap limited profits. Although countries in each of these zones display their own class structure and domestic forms of exploitation, capitalists in core states attain to gain the most from increasing, worldwide trade and financial interdependence. Accordingly, they use their extensive economic resources and influence core state policies to establish favorable political structures on a global scale.

Responding to their competitive advantages, core countries develop strong state machineries to maintain highly-educated labor forces, an ideological apparatus aimed at justifying global disparities, and a political-military apparatus that protects their economic interests abroad. In contrast, peripheral countries tend to have weak and heteronomous states. This way, domestic elites keep critical labor costs low and world capitalists ensure financial, political, and military dependence on core states that provides them advantageous access to these markets (Boswell 1995). More important, to world system theorists,

inequalities in state structuration across economic zones are self-reinforcing. In core countries high taxation and military capacity generates additional goods and services that legitimate further state expansion. In peripheral countries, in contrast, state heteronomy and inefficiencies undermine its legitimacy and weaken existing bureaucracies (Wallerstein 1974: 365).

In sum, to this approach, "the world system is systematically and historically typified by structural divergence and regional clustering" (Austin, McKinney, and Kick 2012: 271). As dominant classes establish political structures to maintain exploitative class relations at the domestic and international levels, state *dimorphism* occurs between increasingly strong core states and gradually weakened peripheral ones.

Whereas world system theory attributes lack of state isomorphism to the interests of hegemonic states, mainstream historical institutionalist attributes it to the intended and unintended effects of extant national institutions. Two core elements of this approach are a special concern with country-specific institutions (i.e. formal political rules and established operating procedures) and sensibility to temporality. Combining these elements, this approach argues that preexisting, national configurations of rules and relationships forge structures of incentives and resources that tend to reinforce the commitment of domestic actors with existing arrangements, precluding major institutional departures and facilitating path-dependent changes. Since, furthermore, countries differ substantially in these preexisting configurations, the ultimate outcome should be gradual divergence or, at least, non-convergence (Steinmo, Thelen and Lonsthreth 1992; Thelen 1999). As noted by Fioretos (2011: 384), historical institutionalists have proven particularly "skeptical that the proliferation of new international rules and norms will lead to a convergence in state's national policy and institutional choices".

To historical institutionalists, these self-reinforcing or positive feedbacks emerge directly from inherent features of domestic political institutions. Political rules are nested in hierarchical structures, where the higher-order, constitutional rules in many countries set veto points and legal constraints that complicate substantial regulatory changes. Political authorities commonly draw on the power vested in some institutions to achieve reforms that bolster their relative positions. More consequential, both dominant and dominated actors have adaptive expectations. They make sunk investments in existing rules to facilitate coordination and reduce uncertainty. They also develop skills and establish identities tailored to national institutions, gradually escalating collective costs of major institutional reforms (Pierson 2004; Steinmo 2008). Given these considerations, historical institutionalists concur that institutional change does occur, but that it is heavily influenced by past national structures and tends to reinforce the logic of preexisting arrangements.

Following this line of reasoning, many sociologists and political scientists argue explicitly that incentives built in distinct national institutions prevent state isomorphism. For instance, the Varieties of Capitalism approach stresses that "the presence of *institutional complementarities* [within countries] reinforces the differences between liberal and coordinated market economies" (2001: 17). In this view, strong state-businesses collaboration in vocational training and centralized collective bargaining reinforce each other. John Campbel (2004), similarly, argues that "regulative institutions" in high spending countries like proportional electoral system and centralized collective bargaining, actually, create incentives for ratchening up spending and reinforce the power of welfare state advocates. As a result, "divergence remains the rule rather than the exception because national institutions (...) mediate the degree to which global pressures affect decision making" (2004: 129; also Becker 2010). More recent historical institutionalist work turned

its attention to the conditions of institutional change, although it still stresses the relevance of path-dependence (Conran and Thelen 2016: 61).

3. Hypotheses

The aforementioned theories suggest one, main descriptive hypothesis. Modernization, world society, and macro-realist theories concur in predicting that state structures are indeed converging. In contrast, the world system and historical institutionalist theories predict gradual dimorphism in state structures. Since confirmation of the convergence thesis would contradict the expectation of the world system and historical institutionalist theories, it is only necessary to identify one hypothesis.

H1: Cross-national variations in government cabinet size and government expenditure have decreased over time.

Since the convergence camp is dominant in contemporary social theory, we can further test concrete predictions pertaining the mechanisms of state isomorphism. To formulate these predictions we integrate principles of modernization, world society, and realist theories into a revised version of the seminal typology of "mechanisms of institutional isomorphic change" formulated by DiMaggio and Powell (1991[1983]: 67) (DMP, hereafter). Although there is no one-on-one relationship between the three mechanisms discussed by DMP and the three theories of convergence – e.g. world society and modernization theory concur in one mechanism –, this typology provides a cogent initial template of pressures for convergence. DMP distinguish between 'normative', 'coercive' and 'mimetic' mechanisms if isomorphism. Seeking to clarify specific processes, we contribute to this theoretical map by arguing in favor of a hybrid, 'normative-mimetic mechanism'.

Pure, normative pressures for state isomorphism have been posited most forcefully by world society theory. In this view, extensive state expansion has gained rule-like status in global culture. This world normative order increasingly embraces a statist ideology and prescribes organizational creation as the appropriate state solution to any given social problem. Accordingly, embeddedness in the global cultural order of normative discourses compels countries to converge in their state structures. World society research commonly conceptualizes INGOs as major carriers of global prescriptions into the domestic real and with governments as enactors of these models (Drori 2008: 463). Hence, we predict that countries more embedded in the sphere of INGOs undergo special pressures to conform to these global standards (Boli-Bennett 1980: 88).

H2: Countries with deeper embeddedness in the network of INGOs are more likely to bring their cabinet size and government expenditure closer to global average standards.

Coercive pressures occur when financially or politically-dependent countries are legally forced to adopt organizational models that reduce organizational diversity. The EU and the IMF have been the actors exerting the coercive pressures for cabinet and expenditure homogenizations since the seventies. To access the advantages of market integration, the EU has imposed liberal economic policy principles – including fiscal austerity, market liberalization, and privatizations – in a region with comparatively more interventionist countries (Beckfield 2006: 979). Accordingly, it could have unintentionally contributed to worldwide state isomorphism. From a much more strict ideological position and utilizing different instruments, financial dependence on the IMF may have accelerated isomorphism. For instance, it has consistently advocated for small cabinets and has likely relied on conditional principles in its lending activities to achieve changes in state

structures among countries with uncommonly large cabinets, which could have also facilitated convergence.

H3: EU member states are more likely to bring their cabinet sizes and expenditure levels closer to global average standards.

H4: IMF debtor countries are more likely to bring their cabinet sizes and expenditure levels closer to average standards.

Building on realistic microfoundations of organizational choice, DMP also make a compelling case for the mimetic foundation of organizational convergence. DMP argue that, in designing an ideal organizational structure, entrepreneurs face a substantial cognitive challenge in the problem definition and possible solutions of coordination. The common reaction to this challenge is to restrict the search to a selection among the available templates in their environment. Organizations customarily mimic the structures of "old ones throughout the economy" (1991[1983]: 70) and those "they perceive to be more legitimate or successful" (1991[1983]: 70). Yet, in discussing mimetic pressures, DMP amalgamate *imitation* and *normative-mimicking*, which are conceptually distinct and should be parsed out.

Imitation constitutes a form of herd mentality. It occurs mechanically, when an increasing number of adoptions contribute to make a model taken for granted, increasing the likelihood of more reforms in that direction. In contrast, normative-mimicking occurs when organizations react to their unfulfillment of another cultural norm, which turns actors' attention to the prevalence of organizational models. Imitation is, thus, activated by cognitive limitations; normative-mimicking is activated by collective perceptions of stigmatization (Goffman 2009[1963]). Following this reasoning, the following analysis distinguishes between *imitative* and *normative-mimetic* isomorphism.

Imitative isomorphism involves the introduction of a deviance-reducing organizational change after many other organizations have adopted that route. Imitative forces are especially stressed in world society theory, which argues that, the power of a taken-for-granted norm is further reinforced when countries conform to it *en masse*, pressing remaining states to follow suit by mimicking that reform. Imitation of other states' actions occurs especially commonly among countries with a shared cultural background. Shared language or religion set a common identity or 'sense of commonness' that facilitates the transfer of policy information and experiences (Strang and Meyer: 490-491). *H5: Countries whose partner countries already have more standard configurations are more likely to bring their cabinet sizes and state expenditures in line with global standards*.

Imitative isomorphism is not only triggered by cultural ties, but also different tenures in the world order. To Meyer and associates (1997: 152), recently independent states are in dire need of external legitimacy among international actors. This prompts them to adopt standard signs of 'stateness' like a relatively large government cabinet or a conventional state expenditure, even if this complex political organization is not functional to the local economic or social structure. Since these new nations emerge well after the norm of state government of the policy has been entrenched in world culture, they can, moreover, accelerate state structuration without fearing substantial political costs (Meyer and Hannan 1980: 305).

H6: Younger nations are more likely to bring their cabinet size and expenditure levels closer the global average standard.

Normative-mimetic isomorphism occurs due to the unfulfillment of a global norm different from organizational models. In this case an important norm is the state goal to maximize prosperity of its citizenry. By definition, developing countries fail to attain this

norm, leading to a series of strategic reactions. They then replicate state structures of developed countries in the hope that this mimicking will accelerate their economic growth (Apter 1969[1965]: 389; Meyer 1980: 58-60) and also because such replication of ready-made models provides a cost-effective solution to poor countries with limited policy analysis tools (Kim, Jang, and Hwang 2002). For these reasons, convergence in government cabinet size should be especially intense among developing countries. *H7: Developing countries are more likely to bring their cabinet size and state expenditure levels closer to global average standards*.

This logic can be extended to the context of low economic growth. Persistent recessions mark a state failure to meet the cultural obligation of achieving constant increases in prosperity. A leading strategic reaction to this pledge breaking involves converging core state structures to modal, worldwide configurations. Through such convergence, governments can attempt to eliminate some conditions that were restraining economic growth and can deflect attention from their mismanagement of the economy. *H8: Countries in recessions are more likely to bring their cabinet size and state expenditure levels closer to global average standards*.

4. Data and Analytical Approach

Data

This study analyzes worldwide convergence in government cabinet size and government expenditure. We first discuss *government expenditure*, for it is more conventionally defined. This indicator refers to the "general government total expenditure" as a percent of the GDP and was obtained from the IMF's (2016) *World Economic Outlook* database. In the case of government cabinets, we constructed a new database. Government

cabinets can be defined as a complex organization of top leaders of the executive branch "concerned to an important extent with the running of various sectors of public administration" (Blondel 1982: 18). Since earliest manifestations, cabinets are comprised by individuals (holding concrete roles), rather than state organizations. Membership to the cabinet could be determined in objective (i.e. deductive) or subjective (i.e. governmentdefined) terms. We follow a subjective definition to avoid arbitrary exclusions of certain officials and positions and to better reflect variable national understandings of the posts included in cabinets. Cabinets include ministries, secretaries, prime ministers, presidents and other top officials in public administrations deemed by national legislation to be part of the highest, collective body of the executive power.

To identify cabinet composition in a cross-national and longitudinal perspective, we use one main source: *Chiefs of State and Cabinet Members of Foreign Governments* (hereafter, CoS).⁶ This directory has been published by the United States' Central Intelligence Agency (several years) on a monthly or bimonthly basis since 1966. Since its first issues, it lists the names of chiefs of state and cabinet members and their posts in all independent states using the most updated information as of the publication date.⁷ We rely on CoS instead of several years) for two main reasons. CoS has had the most comprehensive country-coverage. Unlike other sources, which have substantial data gaps, CoS has consistently included the cabinet composition of all independent states with a

⁶ The cabinet positions of the US has been obtained from other online sources.

⁷ We follow the definition of independent states and date of independence of Correlates of War Project (2011).

functional government.⁸ CoS has also consistently used a broad and country-defined understanding of government cabinet. This data source, thus, does not arbitrarily exclude certain ministers or non-ministers cabinet members, as occurs in other sources. In addition, using CoS, we avoid having breaks in the series produced by combining sources with different definitions. Previous comparative research has also succesfully employed this source (Jacob, Scherpereel, and Adams 2014, Krook and O'Brien 2012).

Based on one issue of CoS per year,⁹ we construct an Excel dataset with the positions held by all cabinet members. For individuals with several positions only one entry is made. After excluding non-independent countries and country-years prior to independence, the dataset comprises 200 independent states and the 1970-2013 period. We eliminate the head of the central bank and ambassadors to the US and UN, because in most cases they are not Cabinet members (Central Intelligence Agency 2013: iii). Chiefs of state without an executive mandate (e.g. monarchs who are not heads of government) were also eliminated. The resulting database includes the positions of 189,638 country-year-individuals. The large majority of the entries are ministers (74.60%), followed by secretaries (5.17%), chairmen (2.45%), prime ministers (2.32%), presidents (2.24%), vice presidents (1.13%), deputy prime ministers (3.98%) and others (8.09%). From this database, we construct *cabinet size*, which sums all cabinet members in a given country-year.

The multivariate analysis of cabinet size changes includes 11 independent variables. These variables have been selected because they provide indicators of the

⁸ Since the first issue, CoS "includes as many governments of the world as is considered practicable, some of them not yet fully independent and others not officially recognized by the US" (Central Intelligence Agency 1966: iii).

⁹ Not all monthly or bi-monthly CoS issues were at our disposal. Given its availability for practically all years, we selected March as the preferred reference month in the dataset.

mechanisms of convergence discussed in Section 3 or they are standard control variables in macro-political research. To address the role of normative-mimetic isomorphism we consider cross-national variations in economic conditions and tenure in the world system. Dire economic conditions should accelerate converge in their cabinet size. We test this prediction through the *GDP per capita* (GDP per capita international \$ PPP-IMF with 2005 base) (James et al. 2012) and, based on that indicator, the logged *annual GDP (per capita) growth*.¹⁰ Since *annual GDP growth* is rather volatile and recessions could have a lagged impact, we use the moving average in the last three years.

Imitative isomorphism is, first, captured through a spatial lag variable. Given that countries use imperfect information regarding other nations' policies, we can expect that convergence decisions are more driven by the *levels* in other countries' governments than by their longitudinal *changes*.¹¹ Following this reasoning, if imitative forces are at hand, countries whose cultural partners have a cabinet or expenditure profile closer to the global average must deem themselves more compelled to converge to the world standards. Cultural partnership is here defined as having the same dominant religion or language (Simmons and Elkins 2004). For a given country A, *cultural partners more converged* represents the weighted percentage of cultural partners that have a cabinet size (total expenditure) closer to the world average than case A. The weight provides a value of 1 if both cases have the same religion or language and a value of 2 if the share a dominant religion and language.¹² The religious distribution of a country and its dominant language were obtained respectively from Maoz and Henderson (2013) and Central Intelligence

¹⁰ GDP growth rate=log[(GDP per capitat0)/(GDP per capitat1)]

¹¹ For a similar approach, Brinks and Coppedge (2006: 467).

¹² To calculate these spatial lags we use the –spmon– ado file in Stata written by Neumayer and Plumpër (2010).

Agency (2016). Moreover, younger nations should seek to gain external legitimacy by adopting standard models. Therefore, *year of independence* should accelerate convergence in cabinet size and state expenditure (Hensel 2014).

We assess the role of normative isomorphism through embeddedness in international and transnational civil society. According to the world society approach, world culture promotes statist solutions and state structuration, with INGOs as core carriers of these principles. Following a common operationalization in the world society research program, a higher number of *INGO memberships* increases pressures for upward isomorphism in cabinet size and government expenditure. Coercive isomorphism is captured through *EU membership* and IMF lending. *IMF loans* represents the use of purchases and drawings under IMF loans like structural adjustment ones as a percentage of the GDP (World Bank 2016).¹³

The Models include four additional control variables. The race to the bottom theory claims that enhanced capital mobility and global trade triggers cross-national competition to provide favorable institutional conditions (Rodrick 1997). Therefore, economic globalization should produce downward convergence in state structuration and more globalized economies should be more likely to converge. *Economic globalization* is an index of international trade, foreign direct investment, portfolio investment, and income payments to foreign nationals as a percent of the GDP (Dreher 2006). Countries with larger *total population* face more coordination problems, which could promote states expansion (World Bank 2016). By facilitating transfer of public demands to the political arena or seeking economic redistribution, democratic and Marxist political regimes could,

¹³ The indicators are "Use of IMF credit (DOD, current US\$)" and "GDP at market prices (current US\$)" (World Bank 2016).

respectively, also impinge on state growth. All models, thus, include an index of *electoral democracy* (Coppedge, Gerring, Lindberg et al. 2016) and a dichotomous variable for *Marxist state* (Central Intelligence Agency 2016; Paxton, Green, and Hughes 2008). Due to substantial skews in their distributions, we use the log transformation of *lagged size*, *GDP per capita, total population size, year of independence, INGO memberships,* and *IMF loans* (for descriptive statistics of all variables, see Table A1).

Analytical approach

Section 3 points out that most previous work on convergence considers only decreases in overall institutional variation. This conceptualization – named σ -convergence – is dominant in both classic and recent analyses of convergence.¹⁴ Its popularity is probably due to its intuitiveness. As a "variance approach", it allows research to graph and describe changes in policy dispersion using standard statistics of inequality like the coefficient of variation (Marsh 2008; Starke, Obinger, and Castles 2008; Thomas 1980), standard deviation (Koopmans et al. 2012) or the Gini index (Clark 2013).

Yet recent methodological work argues forcefully that, as measure of changes in policy dispersion, σ -convergence is marred with limitations. Analyzing environmental policy in OECD countries, Holzinger (2006: 279) shows the sensitivity of σ -convergence indicators to sample selection and right-censoring (i.e. the arrival of new cases). Similarly, based on simulations, Plümper and Schneider (2009: 1000) conclude that the variance

¹⁴ Two other approaches are the δ -convergence – which considers differences with respect to an exemplary model – and γ -convergence – which compares rankings among countries. Yet these alternative approaches are less apt to test core principles in the theoretical debate on state isomorphism discussed on Section 2.

approach, first, yields inconsistent results if there are small variations in the sample; and, second, understates the level of convergence if this is conditional on country characteristics.

The principle of β -convergence does not suffer the main pitfalls of σ -convergence indicators and has highly flexible properties. Since it pools all country-years in the same analysis, leading to large samples, by virtue of the law of large numbers, it proves insensitive to sample variations. It can to also take into account the conditionality of convergence progress. More important, β -convergence "allows testing causal hypotheses of convergence directly" (Plümper and Schneider 2009: 1002). It accommodates tests of factors that accelerate (or slow down) convergence in the same multivariate models, which is impossible in the σ -convergence setup. For these reasons, we now turn to the analysis of β -convergence.

We, first, test whether catching-up occurs through this general model:

$$\Delta y_{i,t} = Log \frac{(State \ characteristic_{i,t0})}{(State \ characteristic_{i,t-1})} = \alpha + \beta_0 y_{i,t-1} + \sum_{k=1}^{K} \gamma_k x_{i,t,k} + \varepsilon_{i,t}$$

Following the consensus in convergence economics (Barro et al. 1991: 2008; Young, Higgins, and Levy 2008: 1085), $\Delta y_{i,t}$ represents the logged, percent growth in the state characteristic – i.e. cabinet size or government expenditure – for country *i* and between year t₀ and t₋₁. The use of percent growth is justified, because the relative importance of cabinet (expenditure) growth for country *i* depends on the previous size (level). Adding one ministry is less important for a 50-member cabinet than a 20-member one. The growth rate is, furthermore, log-transformed to reduce the influence of outlier growth rates. $Y_{i,t-1}$ is the country's state characteristic at *t*-*i*. If $\beta < 0$, catching-up and/or catching-down is taking place. γ are the coefficients of *k* control variables. This is the first step of the analysis and has descriptive purposes. If β -convergence is documented, the second step involves testing factors that accelerate this adjustment through this more specific model:

$$\Delta y_{i,t} = Log \frac{(State \ characteristic_{i,t0})}{(CState \ characteristic_{i,t-1})} = \alpha + \beta_0 y_{i,t-1} + \beta_1 z_{i,t} + \beta_2 y_{i,t-1} \cdot z_{i,t-1} \cdot z_{i,t-1} + \beta_2 y_{i,t-1} \cdot z_{i,t-1} \cdot$$

$$\sum_{k=1}^{K} \gamma_k x_{i,t,k} + \varepsilon_{i,t}$$

where $z_{i,t}$ represent the variables that accelerate or moderate the rate of convergence. As Plümper and Schneider (2009) note, if in this model $\beta_0 < 0$, $\beta_2 = 0$, the rate of convergence does not depend on the moderating variables considered. If, in contrast, $\beta_0 < 0$, $\beta_2 \neq 0$, this rate depends partially on these moderator factors.

To determine the level β -convergence and factors that accentuate it, we estimate random-effects models with corrections for serial autocorrelation and heteroskedasticity. Random-effect models are adequate, because they utilize both between and within variation in the data and allow us asses the effect of a time-invariant, independent factor commonly stressed by world society theorists – *year of independence*. Time-series, cross-sectional analysis faces generalized complications in the presence of autocorrelation within countries and cross-panel heteroskedasticity. Since the database is a 'short panel' with N > T, clusterrobust standard errors account for these two conditions (Cameron and Trivedi 2010: 273).¹⁵ Yet using estimators with panel-corrected standard errors with a control for first-order autocorrelation we obtain the same results (Section 6).

¹⁵ The models were estimated using the Stata commands 'xtreg, cluster()'.

5. Descriptive Results

We begin by considering trends in the average cabinet size and government expenditure during the considered period. For this purpose, Figure 1 depicts mean, logged values in cabinet size and government expenditure for four samples: the full sample, never-Marxist countries and countries that gained independence before 1970 and 1991. This evidence indicates major differences in these two dimensions of state structuration. Regarding overall trends, cabinet size have generally increased during the 43-year period, although the growth has been especially concentrated among never-Marxist countries and nations that gained independence before 1970. Government expenditure, in contrast, displays a long-term decline and a moderate U-shaped curve. Average, relative, state disbursements declined linearly until the mid-2000s and increased rapidly during the first years of the Great Recession. Patterns of cabinet size and expenditure levels also differ in regard to group variation. The subplots indicate a larger variation across samples in regards to cabinet size than regarding government expenditure.

FIGURE 1 ABOUT HERE

As noted in Section 4, a fulsome examination of β -convergence requires three steps: first, an assessment of non-conditional convergence; second, examining conditional convergence; third, if previous analyses document either non-conditional or conditional convergence, a test of domestic factors that affect the level of convergence is in order. Concerning the first step, despite different trends in cabinet size and government expenditure, can we identify non-conditional (or raw) β -convergence in both dimensions? To answer, Figure 2 depicts the bivariate relationships between the logged, growth in cabinet size and government expenditure, on the one hand, and the logged value at t₋₁, on the other. These scatter plots provide – moderate but clear – evidence of β -convergence in

cabinet size and government expenditure. In countries with larger government cabinets (government expenditure), we observe moderately lower growth rates in cabinet size (government expenditure). Put different, the smaller the expenditure (cabinet size), the higher is the logged, expenditure (cabinet) growth rate. Intense concentration in the point clouds (with >3,000 data points) suggests that outlier cases do not drive the results. Thus, although the relationships are not strong, they are consistent with the prediction of convergence made by modernization, world society, and neorealist theories.

FIGURE 2 ABOUT HERE

The moderate size of the paired relationships makes particularly necessary to examine their statistical significance. To clarify, Models 1 and 3 in Table 1 report the coefficient and t-values. Consistent with the principle of β -convergence, *lagged size* – cabinet size_{t-1} and government expenditure_{t-1} in Models 1 and 3, respectively – is negative and significant in both models. Given that these are log-log Models, the effect can be intuitively interpreted in terms of elasticities through the formula $\Delta y_{i,t} = (e)^{\beta_1}$ (Chatterjee and Simonoff 2013: 75), which indicates the impact of a 1% change in *lagged size* on growth rates. In this case, a 1% change in the cabinet size and government expenditure at t.₁ produces a .0796% and .0723% decrease in cabinet and expenditure growth, respectively. Although this effect is not very strong, it is robust to many specifications. Growth rates are lower among countries with more state structuration, which supports the thesis of a gradual isomorphism in core state structures.

TABLE 1 ABOUT HERE

Scholarly work on β -convergence customarily interprets the lagged effect as evidence of a catching-up process (e.g. Heichel et al. 2005: 832). This is not the only possible cause of this empirical relationship. Considering government expenditure, the

growth rate may covariate negatively with preexisting levels, because (a) countries with lower expenditure observe higher growth rates (i.e. catching up), (b) countries with larger expenditure observe negative growth rates (i.e. catching down), or (c) a combination of both. To determine the dominant pattern, Models 2 and 4 in Table 1 predict growth rates through the tertile position at t₋₁. If catching-up predominates, growth rates should be largest among the lowest tertile and non-significant among the highest tertile. If, instead, catching-down predominates, growth rates should be negative for highest tertile and nonsignificant for the rest.

Models 2 and 4 and, especially Figure 3, make clear that β -convergence occurs due to a combination of limited catching-down and substantial catching up. Consistent with the notion of catching up, growth rates are positive and highest among countries with the lowest 33% cabinet size and government expenditure at t₋₁. Moreover, consistent with the notion of catching down, growth rates are negative and significant among countries in the highest 33% cabinet size and expenditure at t₋₁, although this effect is smaller than among cases in the lowest tertile. This means that β -convergence is the result of a simultaneous process of mainly catching up by countries with rather small expenditure (cabinets) and restricted catching down by countries with unusually high(large) ones.

FIGURE 3 ABOUT HERE

6. Multivariate Results

Section 5 documents non-conditional β -convergence for cabinet size and government expenditure. Yet the effect of the *lagged level* may reflect a range of socioeconomic or political conditions. It is therefore necessary to control for major factors to identify the possible existence of conditional β -convergence. Models 1 and 3 in Table 2 predict the growth in cabinet size and government expenditure controlling for the socioeconomic and political characteristics discussed on Section 4.

This evidence supports the existence of conditional β -convergence in state structures. Controlling for the economic, political and socio-demographic context, countries with larger cabinets (higher expenditure) display significantly lower growth rates in cabinet size (expenditure). In fact, the extent of β -convergence increases when controlling for these country characteristics. In this case, the elasticities of lagged size and cabinet and government growth are -.1201% and -.1095%, respectively. In contrast, after excluding all country-year values with missing information in any of the independent variables, the elasticities of non-conditional β -convergence are only -.0755% and -.0694%, respectively.

TABLE 2 ABOUT HERE

Interestingly, *lagged size* is the only common determinant of the growth rates in cabinet size and government expenditure (Models 1 and 3). Both forms of state growth differ starkly in the influence of other socio-economic and political determinants. Apart from lagged cabinet size, only *year of independence* and *total population* have an impact on cabinet growth. Younger and more populated nations observe higher cabinet growth. Regarding expenditure rates, apart from past levels, the only significant determinants are *GDP growth, economic globalization,* and *Marxist state.* Countries undergoing economic booms, better integrated in the world economy, and with non-Marxist states observe higher expenditure growth.

After having documented β -convergence, we can consider what factors accelerate strategies of convergence by countries. To assess this, Models 2 and 4 in Table 2 includes interaction terms between *lagged size* and nine socio-economic and political factors discussed above. These Models provide evidence strongly supportive of the principle of

normative-mimetic isomorphism. GDP levels and the year of independence do not shape significantly convergence rates. Yet *GDP growth*lagged size* is positive and significant in both Models. Given the large conceptual difference between both dimensions of state structuration, this consistent effect is particularly striking. Convergence rates are significantly higher in contexts of bust. This is consistent with predictions of modernization and world society theory. Driven by the unfulfillment of the increasing prosperity norm and hoping to revamp economic growth, countries with unconventional state configurations that face economic crises are significantly more likely to reduce their unconventionality and converge to the average, global world standard in state dimensions.

The moderational effect of GDP growth on convergence rates is, moreover, substantial. Although *lagged size* remains negative and significant at all levels of *GDP growth* for both dependent variables, convergence rate is clearly accentuated in contexts of economic crisis (Figure 4). We can identify the moderational impact of *GDP growth* on *lagged size* by considering extreme cases in the economic scenario. The elasticities of lagged cabinet size are -.0895% at two standard deviations above the mean in *GDP growth* and -.1697% at two standard deviations below the mean. This represents a 89.63% growth in the extent of β -convergence. The elasticities of lagged government expenditure at the same levels of *GDP growth* are -.0622% and -.1540%, respectively. This represents a 147.70% growth in the extent of β -convergence.

FIGURE 4 ABOUT HERE

Two other mechanisms of isomorphism receive limited support. *Cultural partner more converged*lagged size* is negative in Models 2 and 4, but only significant in regards expenditure growth (Model 4). Countries whose religious or linguistic partners have expenditure levels closer to the global average, are significantly more likely to converge

than those whose partners have more deviant expenditure levels. This is partially consistent with the principle of imitative isomorphism. *IMF loans*lagged size* is also negative in both Models, but only significant in regards cabinet growth (Model 2). Dependence on IMF lending increases the government cabinet convergence rate. This result only supports partially the principle of coercive isomorphism.

In contrast to the robust support for emulative isomorphism and the partial support for imitative and coercive isomorphism, the evidence is not consistent with the principle of pure, normative isomorphism. *INGO memberships*Lagged size* is not negative and significant neither in Model 2 nor Model 4. Countries better embedded in the global civil society network do not display higher convergence rates. In addition, contrary to the raceto-the-bottom theory, countries with more globalized economies are not significantly more likely to converge their expenditure levels. In Section 7 we discuss possible reasons for this non-finding.

The stage in the economic cycle has proven the most robust factor shaping the convergence rate. Countries in a recession are significantly more likely to converge their cabinet size and government expenditure. To elucidate if the economy cycle facilitates convergence by producing catching-up or catching-down, we estimate additional Models restricting interaction terms to each tertile and *GDP growth rate* (Table A2). Figure 5 displays the main result of this exercise. It shows that in recessions, cabinet and expenditure convergence occurs through both catching up and catching down. It is reflected in the fact growth rates of the two extreme tertiles are more polarized in recessions than booms. For countries in the lowest tertile, cabinet and expenditure growth rates peak when GDP growth rates bottom down when GDP growth is the lowest. In other words, economic recessions

produce state convergence by activating catching up and catching down in expenditure levels and cabinet sizes.

FIGURE 5 ABOUT HERE

Robustness Checks

Since our main results could be sensitive to model specification, we estimate a series of robustness checks. In the main models, *GDP growth* rate proved to be the most robust, country-level moderator of the convergence rate. Given the volatility of yearly economic growth and to allow for lagged impacts, so far we operationalize *GDP growth* through moving averages of the last three years. Yet, given that the effects could be restricted to the period considered, we replicate the main models using, instead, two-, four-, and five-year moving averages. Changing expenditure levels faces higher legal and organizational hurdles than changing cabinet size. This means that GDP growth rates should affect expenditure levels with longer lags than in the case of the cabinet size. In five of the six models using alternative specifications, *GDP growth*lagged size* is significant and negative (Table A3). In accordance to the argument of higher reform complexity, the moderational impact of GDP growth also occurs with longer lags in the case of expenditure levels than cabinet size.

Other robustness checks address a series of additional, potential concerns. (1) Due to fewer data points regarding expenditure levels, this variable and cabinet size at t_{-1} have not been included as controls in Table 2, which could affect the results. Table A4 replicates the result with these control variables. (2) Table A4 also addresses the possibility that abrupt breaks in the editorial definition of cabinets used in *Chiefs of State* influences the findings through year fixed effects. (3) The number of independent states has increased substantially over the period considered and the gradual incorporation of cases to the

analysis could affect the results (Clark 2013). We, therefore, split the sample and estimate β -convergence for countries that became independent before two years: (a) 1970 and (b) 1991 (Table A5). (4) Following Cameron and Triveri (2010), all models include OLS and clustered standard errors. An alternative estimator involves panel corrected standard errors (PCSE) with an AR1 disturbance (Table A6). (5) Since results may be sensitive to the use of real GDP per capita with PPP may affect the results, we replicate results using real GDP per capita without PPP (Table A7). (6) Indridason and Bowler (2014) show that in European countries, cabinets are larger in the presence of more effective parties in the cabinet and a social democratic government. We thus add controls for these two factors (Table A8). *Chiefs of State* includes hundreds of positions (e.g. minister, secretary) and some may not be commonly considered part of the cabinet. To assess the influence of type of position, we replicate the analysis including only the sum of the most common category – ministers –, which unquestionably constitute top positions and belong to the cabinet (Table A9).

In all these robustness checks the two main results of the study persist. Adding expenditure levels and cabinet size as controls, adding year fixed-effects, using two subsamples, using a PCSE-AR1 estimator, an alternative indicator of GDP per capita, and only ministers, *lagged size* has a negative and significant effect on both cabinet and expenditure growth rates. In all those cases the effects of *lagged size* are, furthermore, significantly moderated by *GDP growth*. The presence of β -convergence is, therefore, robust under many specifications and recessions consistently accentuate convergence rates.

7. Discussion

Patterns of change in domestic, cabinet sizes and expenditure levels since the early seventies have clear implications for the debate on institutional convergence. Yearly growth rates in these two core institutions are significantly and negatively related through with preexisting levels. This negative relationship provides strong evidence of worldwide, isomorphism in state structures, as it demonstrates that countries with – more or less – outlier state structures have tended to convergence to prevalent institutional configurations. Reaching this central finding, this is the first comparative study on state convergence with worldwide scope and covering several decades.

Apart from utilizing broader evidence, this study seeks to advance cross-national, convergence analysis through substantial methodological and conceptual contributions. We contribute to β -convergence research by formulating a procedure that clarifies the concrete patterns by which lagged levels covariate negatively with growth rates. Classifying lagged levels into tertiles allows us to determine if β -convergence is produced by catching up, catching down, or a combination of both. It also helps us determine if country conditions accelerate convergence by activating catching up or catching down.

Conceptually, our study advances the literature by decomposing DMP concept of "mimetic isomorphism" (1991[1983]). The discussion in that classic article conflates modeling after predominant structures in an organizational field triggered by (a) taken-forgrantedness of such organizational models and (b) the unfulfillment of another cultural norm, when these are distinct processes. We therefore disentangle them by distinguishing between "imitivative" and "normative-mimetic" sources of isomorphism. "Imitative isomorphism" occurs when deviant cases follow cultural peers in adopting conventional structures in that field. "Normative-mimetic" occurs, instead, when low-reputation cases

unfulfilling other norm seek to improve their legitimacy by adopting standard models. Based on this principles, the analysis yields four main, additional findings.

First, tertile analyses indicate that the negative relationship between cabinet and expenditure growth rates and lagged sized levels noted above is due to a combination of catching up and catching down. B-convergence has as the main underlying cause a catching up process, in which countries with the smallest cabinets and lowest expenditure levels attain the highest growth rates. Yet β -convergence has a complementary cause in a catching down process, in which countries with the largest cabinets and highest expenditure levels display negative growth rates.

This result is largely consistent with convergence theories. The evidence supports the shared expectation of modernization, world society, and neorealist theories of a gradual isomorphism in state structures. Modern states have grown increasingly alike in the core aspects of cabinet size and overall expenditure, mostly through the overcoming of deviant, extreme configurations. This finding is particularly challenging to historical institutionalism and world system theories that have championed the divergence thesis. In arguing for persistent economic and status inequalities across countries, world system theorists may have outstated the capacity of the capitalist class in core countries to determine political changes in peripheral nations. Similarly, in stressing that nation-specific political institutional change, historical institutionalists may have understated other, possibly, even more consequential processes. This scholarship has not weighed sufficiently the emergence of negative, feedback effects, patterns of cross-national 'policy learning', and the influence of supranational cultural norms.

Second, regarding facilitating, country-level factors, the evidence does not support the existence of direct, normative isomorphism. Using a standard indicator in the world society scholarship, countries with stronger embeddedness in global, voluntary civil society are not more likely to convergence their cabinet structures and expenditure levels. This finding does not meet the world society expectation of a direct, normative foundation of state isomorphism carried to nation states through networks of professionals and activists. Either assumed normative principles (e.g. state's hegemony in solving collective problems or the belief that problem solving requires organizational creation) have not gained doxic status yet, or they are transmitted to countries through means other than those commonly emphasized by world society theory. World society theory may have more predictive power concerning institutional diffusion than institutional convergence.

Third, the results only support partially the existence of coercive and imitative foundations of state isomorphism. In line with the neorealist expectation that coercion reduces cross-national institutional variation, countries more financially dependent on the IMF have higher cabinet convergence rates. The IMF has established conditionality rules in its lending practices, which are consistent with the 'Washington Consensus'. Since this ideological paradigm prescribes leaner cabinets, this finding suggests that the IMF has coerced countries with unusually large cabinets to converge to more standard models. Dependence on IMF lending, however, does not increase expenditure convergence, probably because changes in cabinet size are less organizationally and legally complex than changes in expenditure levels.

In addition, partially in line with the principle of imitative isomorphism, countries with cultural partners whose expenditure levels are closer to the world average display higher expenditure convergence rates. Given that countries sharing a dominant religion and

language vary widely in their prosperity and security, this effect is not produced by the emulation of countries perceived as more successful, but the taken-for-grantedness of some models within world, cultural regions. Imitative isomorphism may only occur in regards to expenditure levels, because, while IMF has proven interested with cabinet sizes, this may be an uncommon concern. For most other actors, the expenditure level constitutes a more salient , systematic indicator' of state features (Kingdon 1994[1984]), which makes them more close followed by cultural partner countries than cabinet sizes.

Fourth, the moderational effect of the economic cycle suggests the existence of normative-mimetic sources of state isomorphism. Neither GDP per capita, nor year of independence shape convergence rates. Developing nations may undergo more difficulties to ratchet up cabinets and expenditure as part of their effort to accelerate development than initially expected by modernization and world society theories (e.g. Meyer 1980: 58). Younger nations are probably more concerned with other signs of global legitimacy (e.g. cabinet member titles or political system features) than cabinet size and expenditure in themselves.

Yet the economic cycle does influence convergence rates. Countries in economic recessions are significantly more likely to converge in cabinet size and expenditure levels. Tertile analysis, furthermore, clarifies that recessions contribute to state isomorphism through catching up and catching down. In recessions, countries with lean cabinets and low expenditure levels display higher growth rates in both dimensions. In a mirror image effect, recession countries with large cabinets and high expenditure display negative growth rates in both dimensions.

The association between recessions and state convergence is consistent with the presence of normative-mimetic isomorphism. In the current stage in world history, attaining

constant increases in prosperity has become a shared goal by all societies and states have special duties in reaching this goal. While this is an increasingly prevalent goal, countries vary widely in their attainment levels. Many states fail recurrently to attain this global norm and develop a stigma due to economic underperformance. Faced with this loss of internal and external legitimacy, governments in these states are then likely to model their core state structures after more conventional models as part of their economic activation programs. Normative mimicking constitutes a key factor in this process, because in a context of reified growth, underperforming countries are precisely the ones that perceive themselves most compelled to convergence.

It is our hope that this study stimulates a long overdue research program on global isomorphism of state structures. As we discussed above, diffusion is a non-sufficient cause of convergence, so the burgeoning literature on institutional diffusion can shed limited light on isomorphic trends and the extent and causes of convergence remain unaccounted. Future research could continue the exploration of worldwide, state isomorphism through conceptual improvements, and quantitative and qualitative strategies. Given the relative ambiguity in the sociological institutionalist literature on the object to convergence (with respect to environmental norms or with respect to other organizations), more conceptual work is needed on the nature of isomorphism.

In more empirical terms, this study utilizes broad stroke measures of state characteristics. It would be informative to determine if similar patterns can be documented when disaggregating overall expenditure. Additional work in the β -convergence framework could replicate the previous analysis, using available, worldwide data on state expenditure in education, healthcare, and the military. Given limitations on state structures, further quantitative work could also consider longitudinal changes in the variation of close state

outputs like criminality or human rights protection. Qualitative research could also contribute to the literature by documenting who are the reference models or 'generalized others' (Mead 1967[1934]) used by policy-makers. Different conditions could determine if these generalized others are neighboring countries, cultural patterns, or the world as a whole. This and other work would greatly complement the core contributions of this study that core state institutions are becoming increasingly similar and that this isomorphism has normative-mimetic foundations.

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Tables and Figures



Figure 1. Average, logged cabinet size and government expenditure in 200 countries, 1970-2013



Figure 2. Beta convergence of cabinet size and government expenditure in 200 countries, 1970-2013

government expenditure, 1972-2015							
	Cabi	net size	Government	expenditure			
	Model 1	Model 2	Model 3	Model 4			
Cabinet size - log _(t-1)	083***		075***				
	(.008)		(.011)				
Quintile 2 _(t-1)		033***		035***			
		(.007)		(.008)			
Quintile 3 _(t-1)		034***		040***			
		(.007)		(.009)			
Quintile 4 _(t-1)		055***		060***			
		(.007)		(.009)			
Quintile 5 _(t-1)		085***		066***			
		(.008)		(.010)			
Constant	.010***	.049***	.262***	.046***			
	(.002)	(.006)	(.037)	(.008)			
\mathbb{R}^2	.051	.030	.050	.025			
Countries	200	200	188	188			
N	7282	7282	4,010	4,010			
<u> </u>			O 4 *** O O 4				

Table 1. Panel correction models predicting logged growth in government cabinet size and government expenditure, 1972-2013

Note: Standard errors in parentheses; p < .1, p < .05, p < .01, p < .001

Figure 3. Predited average log growth rates in cabinet size and govenrment expenditure per tertile at t $_{(-1)}$, 1970-2013



80 (or minor on per anon o, 15 (0 2012	Cabinet size		Government expenditure	
	Model 1	Model 2	Model 3	Model 4
Lagardaine	128***	139***	116***	116***
Lagged SiZe(t-1)	(.017)	(.021)	(.022)	(.021)
CDB non conito	.001	.000	.013+	.011+
GDP per capita _(t-1)	(.003)	(.003)	(.008)	(.006)
CDP growth	059	067	$.145^{*}$.218***
GDF glowul _(t-3-1)	(.050)	(.049)	(.062)	(.061)
Year of independence _(t-1)	.676***	$.684^{***}$.062	.071
	(.142)	(.145)	(.120)	(.122)
Cultural partners more converged _{(t-}	010	.003	.005	.003
1)	(.011)	(.010)	(.009)	(.008)
INCO mombarshing	003	001	.004	.003
INGO membersmps _(t-1)	(.003)	(.004)	(.006)	(.008)
ME loops	.001	.003	.000	004
INIT IOans(t-1)	(.003)	(.003)	(.004)	(.004)
Economic alphalization	$.000^{+}$.000	.000	.000
Economic globalization _(t-1)	(.000)	(.000)	(.000)	(.000)
Total population _(t-1)	.021***	$.022^{***}$	006*	005
	(.004)	(.004)	(.003)	(.003)
Manual adapted	018	009	.022	.022
Marx1st state _(t-1)	(.014)	(.021)	(.016)	(.016)
	013	012	.001	002
Electoral democracy _(t-1)	(.012)	(.011)	(.014)	(.014)
	005	006	.030**	.014
European Union _(t-1)	(.012)	(.009)	(.010)	(.009)
Emulative isomorphism	. ,			. ,
		.010		013
GDP per capita _(t-1) *Lagged size _(t-1)		(013)		(021)
		556***		620***
GDP growth _(t-3-1) *Lagged size _(t-1)		(162)		.020
T • (, • • • T •		(.102)		(.120)
Imitative isomorphism		0.0		000**
Cultural partners more converged _{(t-}		.026		080
$_{1)}^{*}$ Lagged size _(t-1)		(.049)		(.031)
Year of independence _(t-1) * Lagged		686+		511
size _(t-1)		(.380)		(.505)
Normative isomorphism				
INGO memberships ₍₁₎ *Lagged		004		.015
size(+ 1)		(.009)		(.012)
Coercive isomorphism		()		()
		029*		016
IMF loans _(t-1) *Lagged size _(t-1)		(014)		(016)
		_ 012		_ 021
European Union _(t-1) *Lagged size _(t-1)		(.030)		(.029)
Control variables		` '		· /

Table 2. Panel correction models predicting logged growth in government cabinet size and government expenditure, 1970-2013

Economic globalization(t-1)*Lagged		$.001^{*}$		000
size _(t-1)		(.000)		(.000)
		063		037
Marxist state _(t-1) *Lagged size _(t-1)		(.065)		(.052)
Electoral democracy _(t-1) *Lagged		.005		.041
size _(t-1)		(.038)		(.067)
Constant	.002	.005	000	.001
Constant	(.004)	(.004)	(.003)	(.004)
\mathbb{R}^2	.072	.089	.077	.097
Ν	156	156	156	156
Observations	5626	5626	3347	3347
	1 *	05 ** 01 ***	001	

Note: Standard errors in parentheses; p < .1, p < .05, p < .01, p < .001



Figure 4. Effect of *lagged size* at different levels in *GDP growth rate*



Figure 5. Effect of *tertile* size size at at two standard deviations above and below mean *GDP* growth rate