Regulation & Governance (2011) 5, 350–367 doi:10.1111/j.1748-5991.2011.01114.x

Agency under constraint: Ideological preferences and the politics of electricity regulation in Latin America

Cecilia Martinez-Gallardo

University of North Carolina at Chapel Hill, 253 Hamilton Hall, Department of Political Science, Chapel Hill NC 27599-3265,

Maria Victoria Murillo

Columbia University, 420 W. 118th St., 832 International Affairs Building, New York, NY 10027

Abstract

Whereas both the literature on globalization and the literature on regulatory diffusion stress the pressures that led to policy convergence, this article shows how the ideology of incumbents produced different regulatory outcomes, even in the face of strong financial and technological pressures that constrained policy agency. By looking at the regulatory frameworks adopted at the time of electricity privatization in Latin America, this article shows that right-wing governments adopted regulations that eliminated barriers to entry and investment and limited the discretion of regulators (*market-conforming* regulations), and that former statists who had pragmatically converted to the market creed instead chose regulations that tended to impose higher barriers to entry and investment and gave regulators wide discretion in conflict resolution and price setting (*market-controlling* regulations). These findings suggest the need to look at the ideology (and ideological legacies) of government coalitions for a more nuanced understanding of the process of regulatory diffusion that took place across many sectors in most regions of the world.

Keywords: regulation, privatization, electricity, Latin America, ideology.

1. Introduction

In the last two decades of the twentieth century much of the world seemed subjected to the pressures generated by capital mobility, which drove policymakers toward economic liberalization, privatization, and other market-oriented reforms (Strange 1996; Simmons 1999). Nowhere was this trend more noticeable than in Latin America where the scarcity of capital produced by the 1980s debt crisis pushed governments of different partisan orientations to pursue market-oriented reforms, and especially privatization, in the 1980s and 1990s. As a consequence, it seemed that the new democracies of the region had left voters with limited policy options. Indeed, Johnson and Crisp (2003), Biglaiser and Brown (2003), and Murillo and Martinez-Gallardo (2007), among others, have documented how the ideology of incumbents had no effect on the decision to privatize, which was one of the most widely implemented structural reforms in Latin America.

Correspondence: Maria Victoria Murillo, Columbia University, 420 W. 118th St., 832 International Affairs Building, New York, NY 10027, USSA. Email: mm2140@columbia.edu

Accepted for publication 6 June 2011.

Following Murillo (2009), however, we argue here that even when capital scarcity pushed politicians toward policy convergence, the ideology of reforming incumbents still played a role in shaping *regulatory* policies adopted at the time of privatization. In fact, parallel to the worldwide spread of privatization, Latin America and many other regions of the world observed the dramatic growth of regulation in the newly privatized sectors, a phenomenon labeled by Levi-Faur as the "global diffusion of regulatory capitalism" (Levi-Faur 2005, p. 14). By looking at the regulatory frameworks adopted at the time of electricity privatization in Latin America, we show in this article that the ideology of incumbents did shape regulatory policymaking, even in the face of strong financial and technological pressures that constrained policy agency. Our results suggest the need to look at the ideology of government coalitions for a more nuanced understanding of the process of regulatory diffusion that took place across a wide array of other public and social services in different regions of the world during this period.

In this article we complement Murillo's (2009) qualitative analysis of partisan influence on regulatory choices, by providing statistical evidence of the differences in the content of regulatory policies depending on the ideological legacies of the incumbents pursuing them. We center our analysis on the electricity sector, which experienced a worldwide trend toward privatization and the establishment of regulatory authorities during the studied period, because it was mostly state-owned and was deeply affected by capital shortages due to its capital- and technology-intensive nature (Levi-Faur 2005, p. 18). We analyze the regulatory frameworks established at the time of electricity privatization in Latin America, a region where the dual process of regulatory and privatization diffusion was particularly intense (Jordana & Levi-Faur 2006). Our results show that right-wing governments adopted regulations that eliminated barriers to entry and investment and limited the discretion of regulators (*market-conforming* regulations); and that former statists who had pragmatically converted to the market creed instead chose regulations that tended to impose higher barriers to entry and investment and gave regulators wide discretion in conflict resolution and price setting (*market-controlling* regulations).

Because the establishment of regulatory frameworks is generally simultaneous to privatization, the role of policymakers' ideological legacies is heightened by the absence of private providers, whose regulatory influence grows in the post-privatization period. In explaining regulatory choices, the ideological legacies of governing coalitions are crucial. These choices involved a combination of short-term distributive consequences (e.g. on access and prices) and more uncertain medium-term effects of technical complexity. To make decisions about the latter, policymakers relied on the use of ideological short cuts, based on prior perceptions of state intervention, as well as on delegation to experts they trusted to internalize their distributive preferences. As a result, politicians interpreted the same facts, or judged the same institutional format, from different perspectives.

The remainder of the article is organized into three sections. Section 2 introduces our theory and its application to explain variation in the degree of regulatory control across all Latin American countries. In the third section we characterize the process of regulation in electricity as a selection process and test the main hypothesis on an original data set of regulatory frameworks across 18 Latin American countries. The last section concludes.

2. Explaining variation in regulatory control

The last two decades of the twentieth century were marked by the widespread diffusion of public utility privatization and the establishment of regulations for the privatized sectors in many regions of the world. While others have emphasized the role of international financial institutions, such as the International Monetary Fund (IMF) (Henisz *et al.* 2005), and sector-level variables (Jordana & Levi-Faur 2006) in the establishment and diffusion of regulation in public utilities, in this article we focus on the role of policymakers' ideological legacies to explain variation in the rules adopted. We explore the politics behind the establishment of regulatory frameworks in the privatized Latin American electricity sector to show that despite external financial constraints on the agency of policymakers, politicians' ideological legacies informed their choice regarding regulatory reform. That is, even though external financial constraints did in fact induce Latin American politicians to privatize public utilities, policymakers retained agency on the choice of regulatory frameworks adopted at the time of privatization.

Changing the focus from the choice between private and public ownership to the less publicly salient decision over the regulatory content of reforms allows us to show how partisan preferences over economic policymaking subsisted even at a time when financial constraints were at their height. Beyond the decision to privatize, policymakers also chose a regulatory framework for the privatized industry that included limits and requirements for investment, entry rules, different levels of regulatory discretion for setting input and consumer prices, and different roles for regulators in solving conflicts and financing the regulatory agency through taxes. In choosing a regulatory framework, policymakers made important decisions about the relative role of the state and the market in regulating the industry that would ultimately impact both investors and consumers through the allocation of the costs and profits associated with electricity services.

The low public salience of decisions over regulatory frameworks obscured the influence of partisan considerations in choosing the manner in which they regulated privatized industries. Whereas decisions with a short-term impact on prices and access to public services had clear effects on politicians' constituencies, the technical complexity of many regulatory decisions prompted policymakers both to use ideological short cuts to assess their options and to delegate to experts who, given the political nature of their tenure, had every incentive to heed politicians' partisan preferences. The resulting patterns of policymaking, we argue, reflected the legacies of *statism* of the incumbent privatizers.

Whereas the effect of short-term distributive consequences on partisan constituencies in defining Latin American policymaking in this period has been documented (see e.g., Remmer 2002; Brooks & Kurtz 2007; Kaufman & Ubiergo 2001; Murillo 2002), the impact of ideological legacies through experts and inferential short cuts has been less studied. The influence of ideological legacies – especially regarding the degree of state intervention – on the reform of public utilities has been analyzed in advanced democracies by a literature that assumes a strong civil service and thereby emphasizes the agency of technical bureaucracies (Vogel 1996; Bartle 2002; Levi-Faur 2006). Yet Latin American countries lacked effective bureaucracies at the time of reforms. The experts who were in charge of the technical aspects of this process were mostly political appointees who had built their experience in the prior period of state ownership. Moreover, the political nature of their appointment gave them incentives to take the preferences of reforming presidents into account in designing policies and the technical complexity of many regulatory decisions heightened their influence over policymaking. In addition, ideological legacies related to state intervention generated inferential short cuts that helped politicians make decisions in the face of uncertainty about the medium-term distributive consequences of regulatory choices (Druckman 2001; Taber 2003). Ideological legacies provided politicians with rules of thumb to follow in interpreting institutional choices over regulations within the menu of options presented by experts. In particular, their ideological schema helped them relate the policy choices presented by experts to the institutional choices that in their perception had been positive to their political coalition in the past. As a result, politicians' interpretations of regulatory choices produced systematic variation regarding the degree of regulatory power.

The effect of ideological legacies and delegation to experts on the choice of regulatory structure is exemplified by the contrasting regulatory schemes chosen in Argentina and El Salvador. In privatizing electricity, democratically elected politicians in both Argentina and El Salvador looked to the Chilean privatization experience, which had been implemented by the dictatorship of Augusto Pinochet and was the first in the region. Pinochet had ousted a socialist president and established a market-oriented regime that sought to prevent future state intervention. The Chilean reform in 1982 unbundled the industry vertically – into generation, transmission, and distribution – while forbidding discrimination against foreign capital, investment conditions, or entry rules. Pricing discretion was restricted by defining a methodology for calculating distribution prices; transmission fees had to be agreed upon by the parties (or solved by arbitration); and the regulator had little capacity to solve conflicts between actors or even request information about the working of the independent dispatch operator. Finally, bureaucratic expansion was kept to a minimum and the existing regulator was downsized because, according to the experts who drafted the reform, its bureaucracy was incompetent and the government wanted to avoid bureaucratic strengthening.[1]

By the time Argentineans and Salvadorians embarked on this process, it was obvious that the lack of rules on property acquisition in the Chilean reform had resulted in practice in a subsequent process of vertical and horizontal concentration (Bernstein 1995; Bitrán & Serra 1998). Argentina privatized almost a decade after Chile under the Peronist administration of Carlos Menem. The Peronist party, however, had a strong statist past including the creation of state-owned enterprises in the electricity sector and so when Argentinean privatizers studied the Chilean experience and its *market-conforming* regulatory framework they paid special attention to the deleterious consequences on property concentration. The two subsequent projects drafted by Argentine experts in the Menem government involved delegations that travelled to assess the Chilean experience and devised regulatory frameworks that were more *market-controlling*. The final design included entry rules to prevent property concentration within each segment of the industry (generation, transmission, and distribution) while limiting vertical integration. According to interviews with former experts in charge of privatization, in order to achieve legislative support from the governing party experts also had to include the preference of these former *statist* politicians – who needed to keep their political coalitions in place – beyond rules on property acquisition.[2] Hence, the Argentine law also established investment requirements and gave broad powers to the newly created regulatory agency. Peronist legislators concerned about the role of the state in shaping the development of the sector also pushed for the creation of a national energy fund to provide regional subsidies, endowing the regulator with veto power over dispatch operations, and the regulatory power for the establishment of consumer prices that had to be "fair and reasonable."[3] The new regulatory authority was thereby conceived with broad powers, including the defense of consumer rights, establishing thresholds of consumption for large users, overseeing property acquisitions, and defining transmission fees and distribution prices. The agency had its own budget financed by taxes on the industry and employed nearly 100 personnel.

Five years later, the right-wing government of Armando Calderón Sol sought to privatize the Salvadorian electricity sector. In sharp contrast to the Peronist Party in Argentina, Calderón's party, the Nationalist Republic Alliance (ARENA), was formed in 1981 by politicians associated to right-wing death squads and, although it had moderated and led the democratic transition, it continued espousing an anti-communist and free-market ideology (Wood 2000, pp. 243–246; Artiga González 2001, pp. 142–143). This ideological legacy shaped the perception of Salvadorians regarding the Chilean and Argentine regulatory reforms and made them choose the Chilean reform as a model. The Salvadorian expert appointed by President Calderón to lead the process was Alfredo Mena Lagos who had been politically active since his youth in the right-wing movement and founded a right-wing think tank. In fact, Salvadorians hired the same experts who had designed the Chilean regulatory framework under Pinochet (personal interview with experts Renato Agurto and Sebastián Bernstein) as consultants. The chosen regulatory scheme reflects closely the preferences of these policymakers, establishing market mechanisms based on a formula for setting prices and imposing no investment conditions (except that information be supplied to the regulator) or entry rules, thereby allowing vertical integration as long as accountancy is kept separate. There is no policymaking body for electricity and the regulatory agency was to set the criteria for the operation of the wholesale market and the maximum rate for low-usage consumers only for a transitional period, after which market rules apply to all prices.[4] Its discretion to regulate non-competitive prices and resolve conflicts over transmission fees is also very limited.

The contrast between the regulatory frameworks chosen by Argentine and Salvadorian policymakers illustrates the impact of statist legacies on the definition of which experts were entrusted with the reforms and how institutional choices were perceived, which generated systematic variation in regulatory content across the region. In turn, these different regulatory frameworks generated diverse market outcomes with distributive implications in the post-privatization period. For instance, the Salvadorian regulations resulted in a high degree of market concentration in the generation sector whereas the different sanction powers of Chilean and Argentine regulators affected the way in which they dealt with the electricity shortages that affected both countries in 1999. In both countries, both the government and the opposition blamed the providers for the shortages, but only the Argentinean regulatory agency had sufficient discretion to issue sanctions and compensate users. In Chile, Congress had to pass a new law in order to allow sanctions to providers, which could not be applied retroactively.

In emphasizing the effect of ideological legacies about state intervention, however, we are not denying the weight of other factors in shaping regulatory choices. In particular, we recognize the effect of institutional constraints and political compromise. Indeed, our analysis complements the literature that emphasizes the impact of institutions on patterns of electricity reform (see e.g. Haggard & Noble 2001; Heller & McCubbins 2001, for instance) by providing an argument that explains the origin of policymakers' preferences and their effect on the reform process. Moreover, in controlling for the impact of political institutions in our statistical analysis, we are also concerned about how veto points generate mechanisms to make policymakers horizontally accountable, thereby reducing the degree of corruption and cronyism that Manzetti (2009) identifies in the process of market reforms, and especially in privatization. It is hard to test the effect of corruption given how widespread the challenges against privatizing governments of different political signs were and the fact that most corruption indexes only start in the mid 1990s.[5] Yet like Manzetti (2009) we believe that institutional constraints on executive power are crucial in limiting corruption on policy choices, giving us another reason to control for their effects in the statistical analysis.

Although we assume that policy diffusion occurs during the process and we control for the impact of previously adopted regulations, we are more skeptical about the impact of technological change given that the most dramatic innovation in the sector – the introduction of combined cycle units – is from the 1970s. Even though the previous infrastructure in the sector could have affected the urgency to privatize and bring new investment, its effect on the choice of regulatory frameworks is less clear. In any case, there is limited variation (at least in the urban areas) across the region. Coverage of electricity was above 70 percent in 1985 for all countries expect for Bolivia, Peru, Honduras, and Nicaragua. We control, however, for the variation in the demand for electricity – with a stagnant increase in supply due to fiscal constraints – since it could affect choices over investment requirements and pricing.

3. Modeling patterns of regulatory choice: empirical strategy and results

In order to identify variation in the regulatory framework for the privatized electricity industry, our dependent variable, we have constructed an original data set that includes information on regulations in every Latin American country between 1985 and 2000. Based on the degree of regulatory discretion and control over market allocation of resources (Murillo 2009), we place countries along a continuum that ranges between two ideal types of regulatory framework: *market-controlling* and *market-conforming*.

Market-controlling regulatory content favors the establishment of political goals to shape investment decisions. Limits on the investment of foreign capital, even if capital scarcity drives the reforms, reflect a political preference for domestic ownership or management; the existence of investment targets suggests government-imposed conditions for capital allocation to achieve goals of coverage and quality set politically rather than by the market. Entry rules are used as a tool for fostering developmental goals different from what market demand might achieve. The state uses its regulatory power and the creation and expansion of bureaucracies to impose prices and resolve intra-industry conflicts; these become crucial mechanisms by which it shapes market outcomes. Larger regulatory discretion enhances the flexibility of regulators to react to unforeseen circumstances and to cover different aspects related to the development of the sector, but it also increases the potential for regulatory expropriation, especially as regulatory independence is harder to enforce than restricted regulatory powers. By contrast, a *market-conforming* regulatory framework limits regulatory discretion explicitly and therefore circumscribes the capacity of governments to control private investment. This type of reform typically includes no limits on foreign capital, allows market incentives to drive investment decisions, opens markets without entry rules, and resolves negative market externalities *ex post* and as market imperfections. As a result, when market-conforming regulatory agencies are established, the size of public bureaucracies and their regulatory discretion are limited.

To place countries along this continuum, we code each regulatory framework according to whether it had any of the following eight characteristics: limits on foreign investment; entry rules; investment requirements; regulatory discretion for setting consumer prices, for setting intra-provider prices (for either interconnection or transmission), for solving conflicts between providers, and for solving conflicts between consumers and providers; and regulatory capacity to tax the industry in order to provide an operating budget for the regulatory authority. These items, however, tend to appear together in the regulatory frameworks, suggesting that they are not chosen independently. For example, practically every country that included some investment requirement also included rules to entry. In order to reflect this fact we aggregate country scores on these eight items to reflect the main dimensions on which regulatory frameworks vary: (i) attitudes to foreign investment; (ii) the capacity of regulators to provide an operating budget for the regulatory authority; (iii) barriers to entry; (iv) regulators' discretion for setting prices; and (v) regulators' discretion for solving conflicts. The resulting scores are added to create the Index of Regulatory Content (IRC) which places countries on a 5-point scale where 0 denotes an ideal market-conforming reform and 5 one that is thoroughly market-controlling.[6]

Table 1 shows a summary of the Index for all the countries in our database and illustrates that, despite the rapid spread of electricity privatization across the region, there was wide variation in the type of regulatory control adopted at the time of policy reform. Overall, the average score in the Index is 2.5, with a standard deviation of 1.43. Among countries that privatized the electricity sector, the extent of market control varies from a low of 0 in Chile, the first country in the region to privatize and, with El Salvador, the country with the most market-conforming regulatory framework, to highs of 3.5 and 4, respectively, in the privatized Argentine and Panamanian sectors. The table also includes information for countries where a privatization law was passed but assets were never sold and countries that did not privatize the sector at all. Among these countries there is also wide variation in the extent to which the state-led sector was regulated – from a low score of 1 for Honduras, to a high of 5 for Costa Rica, where privatization of electricity was never implemented and the sector remained highly regulated.

Our main independent variable, the preferences of politicians regarding reform, cannot be directly observed and so we rely on the ideological legacies and commitments of policymakers as a proxy (*Statist Legacy*). Specifically, we code whether the reformer's party promoted state intervention or nationalization of public utilities in the past or not. We also include parties that had no incumbency experience – and thus do not allow coding based on prior policies adopted – but campaigned against privatization from the opposition only to convert to the market creed after their election to office.[7] For instance, the Dominican Liberation Party (PLD) did not gain office until 1996 and so did not have a legacy of nationalization or creation of state enterprises in the sector. However, President Leonel Fernandez, who privatized electricity in 1999, is classified as having a statist legacy given the party's nationalist and left-wing origins and its prior espousal of socialist policies.[8] We chose not to use traditional measures of ideology as proxies for

Table 1 Index of regulatory content in electricity

INDICATORS†	Chile	El Salvador	Nicaragua	Honduras	Guatemala	Dom. Rep.	Venezuela	Bolivia	Paraguay	Uruguay	Colombia	Ecuador	Brazil	Peru	Argentina	Panama	Mexico	Costa Rica
(1) Foreign investment																		
Limits to FDI	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1
(2) Barriers to entry																		
Investment requirements	0	0	0	0	0	0.25	0.5	0.5	0.5	0	0.5	0.5	0	0.25	0.5	0.5	0.5	0.5
Rules to entry	0	0	0.5	0.25	0	0.5	0.25	0.5	0.5	0.5	0.5	0.5	0.25	0	0.5	0.5	0.5	0.5
(3) Regulatory discretion in prices																		
Network prices	0	0	0	0.25	0	0	0.5	0	0	0.5	0.5	0	0.5	0.5	0.5	0.5	0.5	0.5
Consumer prices	0	0	0	0.5	0	0	0.25	0	0	0.5	0.5	0	0.5	0.5	0	0.5	0.5	0.5
(4) Regulatory discretion for solving conflicts																		
Btw consumers & providers	0	0	0	0	0	0	0	0.5	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
Btw providers	0	0	0	0	0.25	0	0.5	0	0	0	0	0.25	0.5	0.5	0.5	0.5	0.5	0.5
(5) Bureaucratic fees structure																		
Self taxation rather than general budget	0	0	0	0	1	1	0	1	0.5	1	1	1	1	1	1	1	0	1
Index of Regulatory Content	0	0	0.5	1	1.25	1.75	2	2.5	2.5	2.5	3	3.25	3.25	3.25	3.50	4	4	5
Privatization date	1982	1996	1998	1994	1996	1999	n/a	1994	n/a	n/a	1994	1993	1995	1992	1991	1997	n/a	n/a
Effective privatization	yes	yes	yes	no	yes	yes	no	yes	no	no	yes	no	yes	yes	yes	yes	no	no
Party (year of privatization)	Pinochet	Arena	PLC/AL	–	PAN	PLD	–	MNR	–	–	PL	–	PSDB	Cambio 90	PJ	PRD	–	–
Government type (year of privatization)	True Believer	True Believer	True Believer		True Believer	Statist		Statist			Statist		Statist	Unclear	Statist	Statist		

†Indicators (1) to (5) are weighted equally to create the index. Scores for each dimension are constructed by adding scores on individual items. For each dimension, countries receive 1 point if provisions are market-controlling, 0 points if they are market-conforming, and half a point if they are somewhere in between (when two items are coded on a given dimension, countries receive 0.5 points if provisions are market-controlling, 0 points if they are market-conforming, and 0.25 of a point if they are somewhere in between).

Table 2 Degree of regulatory control in electricity and policy preferences

	Privatization by incumbent with statist legacy	Privatization by True Believer in the market
	Argentina (3.5)	Chile (0)
	Bolivia (2.5)	Nicaragua (0.5)
	Colombia (3)	El Salvador (0)
	Panama (4)	Guatemala (1.25)
	Brazil (3.25)	
	Dominican Rep (1.75)	
	Peru (3.25)	
Index Regulatory Content (avg.)	**3.04**	**0.44**

policymakers' preferences because the most commonly used indicators of ideology (e.g. Coppedge 1997) are expert ratings that are based on the policies of the government, which are our dependent variable. Thus, using ideological legacies allows us to avoid this endogeneity problem.

Table 2 classifies countries according to the preferences of policymakers and the content of the policies adopted at the time of privatization. As we discuss above, incumbents with a *Statist Legacy* are those who privatized electricity despite having a history of state intervention in the sector, or having previously run on a platform that rejected privatization. By contrast, *True Believers* are right-wing incumbents that had no history of state intervention in the sector and, instead, had traditionally run on a program of state retrenchment. The table shows significant differences in the type of regulatory framework adopted by policy reformers, depending on their ideological legacies. Indeed, a difference in means test of the Index shows that there is a large and significant difference in the type of regulations established, depending on whether reforms were adopted by incumbents with a statist legacy or by true believers.

Our control variables include the impact of financial and political constraints that may have shaped the decision to privatize and the choice of regulatory framework. Since IMF conditionality has been identified as crucial in the diffusion of privatization, we use an indicator of whether countries subscribed to standby agreements with the IMF (*Under IMF*) to assess the impact of financial coercion by international financial institutions favorable to market-oriented reforms. Another measure of financial pressures to privatize is the size of debt service as a proportion of total exports (*Debt*), which measures the leverage of foreign creditors who were interested in the impact of privatization proceeds on the value of their bonds. Additionally, the fiscal position of the government measures the need for fiscal resources (*Fiscal Position*).[9] We would expect cash-strapped countries to have stronger incentives to privatize and to achieve higher prices for their assets. We use *Electricity Consumption per Capita* to control for the impact of changes in electricity demand and we also include growth rates (*Growth*) which should be positively associated with the demand for electricity.

We include institutional and political controls in order to measure the leverage of incumbents in negotiating the reforms and the opposition's ability to monitor the executive and keep corruption in check. First, we measure formal institutional constraints using an index developed by W.J. Henisz (2002, p. 380) and based on "the number of independent veto points over policy outcomes and the distribution of preferences of the actors that inhabit them." Second, we measure the ideological distance between the executive and the legislature using data from Murillo and Martinez-Gallardo (2007) that places parties on a scale of 1 (Left) to 5 (Right) and builds a continuous measure of the government and the opposition's ideology (see the Appendix).

To test the relationship between policymakers' preferences and policy type in a multivariate context we rely on a Heckman selection model, which allows us to control for the possibility of selection bias in the choice of regulatory framework. The main reason behind our choice of model is that the same types of things that drove certain countries to privatize might have also driven them to adopt certain kinds of regulations, beyond the effect of their ideological legacy, and selection models allow us to correct for this possible source of bias. In modeling the choice of regulatory framework as a selection process, we are assuming that the decisions to privatize and to regulate the industry were sequential. However, the results that we present below do not depend on this assumption. In the Appendix we show that modeling the choice of regulatory type as endogenous to the decision to privatize does not change our main findings.

Our observations are country-years; we observe each country on a yearly basis and code whether the electricity sector was privatized and, if it was, what its regulatory scheme looked like according to our Index.[10] Structuring the data in this way allows us to record the changing conditions that characterized the environment in which these decisions were made. For example, the main variable of interest, statist legacies, varies notably within country, over time and with it so should the likelihood that a certain regulatory content will be chosen. Hence, we expect that if Panama had privatized electricity under the Partido Arnulfista the regulatory framework adopted would have been more market-conforming than the one that resulted from privatization by the Party of the Democratic Revolution (PRD) government of Ernesto Pérez Balladares.[11] Beyond the legacy of the incumbent, other variables also change from year to year; to go back to the example of Panama, during the administration of President Pérez Balladares, financial conditions changed substantively with growth rates increasing from 1.75 percent of GDP in 1995 to 4.56 percent in 1997, and the deficit going from −3.47 percent to −1.85 percent in the same period. Politically, although the ideological distance to the legislature remained the same, institutional constraints also increased after Pérez Balladares took office in 1995.

The number of cases in which we are able to observe whether the regulatory framework adopted after privatization was market-controlling or market-conforming, however, is small, potentially limiting the reach of our analysis. In order to check the robustness of our results we ran a simple ordinary least squares (OLS) regression that included only the ten cases of privatization and found that an incumbent's statist legacy significantly shapes regulations. This strategy, however, ignores both the type of within-country variation in the conditions under which reforms happened that we have illustrated and the possibility of selection bias. Therefore we also test for robustness with a multinomial logit that analyzes the choice between not privatizing, privatizing with a market-controlling regulatory framework, and privatizing with a market-controlling one; and with different specifications of the IRC. None of these specifications changes our central findings (see the Appendix).

The first stage of the analysis models the decision to privatize electricity as a probit. In line with the literature, we include the size of the debt, the fiscal position of the country, and the indicator for IMF standby agreements to control for the financial pressures that led to the widespread implementation of privatization in the electricity sector throughout the region. We include *Growth* rates to control for the demand for electricity and we control also for the quality of the service by including *Electricity Consumption*. To control for the political constraints that incumbents faced, we include the measures of ideological distance and institutional constraints described above. In addition, we follow Murillo and Martinez-Gallardo (2007) and include measures of political polarization, the size of the incumbent's legislative advantage *vis-à-vis* the opposition, an indicator of whether the opposition was left-wing, and the fragmentation of the legislature (measured by the number of effective parties).

The results for this first stage are shown in Table 3 and are largely consistent with findings in the literature: larger fiscal deficits and the need to catch up and expand supply are associated with privatization. We also find significant political effects, in particular the extent of the president's legislative advantage, which made privatization more likely, and the extent of polarization in the legislature, which decreased incentives to implement the reform.

The second stage of the analysis explores the relationship of interest, between the level of regulation chosen by countries that privatized the electricity sector and the preferences of policymakers. This regression uses OLS, with the score each privatizing country received on the Index of Regulatory Content as the dependent variable. To recap, the main prediction of our theory is that incumbents who do not have a statist legacy are more likely to adopt market-conforming regulatory frameworks. Incumbents with a statist legacy instead should choose a more market-controlling regulatory content. The results presented below strongly support these claims; the partisan preferences of policymakers have a significant effect on the regulatory content of reforms across Latin America.

Given the restricted sample, Table 3 includes different specifications of the model. All four specifications, however, show that, controlling for possible selection effects and alternative explanations, ideological legacies have a strong and substantial effect on the choice of regulatory framework. The coefficient on *Statist Legacy* indicates that, on average, regulations adopted by incumbents with a legacy of state intervention receive a score on the IRC between 1.2 and 2.2 points higher than incumbents without this legacy. Returning to the example of Panama, the market-controlling regulatory framework adopted during the administration of Pérez Balladares, a statist president from the PRD, scores 4 on our Index. If under the same financial and institutional conditions the reform had been implemented instead by an incumbent without a statist legacy (the Partido Arnulfista, for example), model (4) predicts that the regulatory framework would have been much more market-conforming, scoring 2.4 on the IRC. These results give strong support to our hypothesis that the identity of privatizers shapes the choice of regulatory content – and suggest that ideological legacies are a necessary complement to explanations of regulatory decision-making based solely on institutional constraints or political competition.

Following previous work, which has found some evidence of the diffusion of regulatory reforms over time and across countries (see e.g. Jordana & Levi-Faur 2006), we include in Model (1) controls for spatial and temporal diffusion. The first variable measures distance from Chile (*Spatial Diffusion*), which was the first country to privatize and establish a regulatory framework (for a similar approach see Madrid 2003). The second variable is the average IRC for countries that adopted regulations for the

Table 3 Effect of statist legacy on regulatory control (with Heckman correction for selectivity)

	Dependent Variable:				
	Privatization† (Probit regression)	Index of Regulatory Control†† (OLS regression)			
Independent Variables	Selection equation	(1) Statist legacy	(2) Institutions	(3) Economy	(4) Reduced model
Statist legacy		2.160***	1.583***	2.125***	1.243***
		(0.372)	(0.316)	(0.568)	(0.156)
Spatial diffusion		−10.475			
		(6.571)			
Average regional IRC (lag)		−0.244			
		(0.164)			
Ideological distance	0.884		−0.819***		−0.710***
	(0.671)		(0.243)		(0.107)
Political constraints	1.453		0.701		0.545
	(1.450)		(0.795)		(0.335)
Electricity consumption	−0.001**			0.000	0.001***
	(0.001)			(0.001)	(0.000)
Under IMF	0.003			−0.574	−0.134
	(0.491)			(0.575)	(0.118)
Debt	0.007			−0.057**	−0.013*
	(0.020)			(0.026)	(0.007)
Fiscal position	−0.219***			0.069	
	(0.074)			(0.104)	
Growth	0.017			0.121	
	(0.064)			(0.150)	
Left opposition	−0.302				
	(0.902)				
Legislative advantage	3.203*				
	(1.734)				
Polarization	−2.282***				
	(0.848)				
Effective num. of parties	0.131				
	(0.170)				
Time	0.388***	−0.352***	−0.205***	−0.765***	−0.287***
	(0.121)	(0.131)	(0.061)	(0.258)	(0.040)
Constant	−6.566***	6.013**	2.921***	10.584***	4.308***
	(1.869)	(2.509)	(0.814)	(3.360)	(0.607)
Lambda		−0.276	0.398	−0.605	0.068
		(0.395)	(0.200)	(0.491)	(0.129)
Observations (Uncensored Obs)	189	189 (10)	189 (10)	189 (10)	189 (10)

†Coefficients of probit model, with robust standard errors in parentheses.

††Coefficients of OLS regression with standard errors in parentheses.

Fiscal position and growth are excluded from the last model because likelihood ratio tests show that they do not explain a significant portion of the variance. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

privatized sector in the previous year.[12] Neither variable, however, provides significant evidence of the diffusion of regulatory content.

Models (2) and (3) present results for institutional and financial constraints. We present these results separately because they are highly collinear and we want to be sure that this does not bias our results. In Model (4) we use likelihood-ratio tests to reduce the model and include only the variables that contribute significantly to explaining variation in the IRC. The findings on institutional constraints are mixed. The index of formal constraints (*Political Constraints*) is not significant. By contrast, ideological distance has a significant and negative effect on the choice over regulatory content. An increase of one standard deviation in the distance between the executive and the median legislator (0.54) reduces the Index of Regulatory Content by 0.38, making it more market-conforming. This finding fits the argument in the institutionalist literature that suggests that in contexts of inter-branch conflict, political actors will tend to reduce regulatory discretion (see e.g. Levy & Spiller 1994). That is, we provide evidence for the impact of incumbent preferences on regulatory choices but also highlight the importance of institutional constraints on shaping those preferences in the way predicted by the literature.

In order to control for the influence of international financial institutions we again include the indicator of whether countries have subscribed to standby agreements with the IMF but find no significant effect.[13] Model (4) also shows that the fiscal position of the government has no effect on the choice between the two alternative reform types suggesting that fiscal strain was instrumental in pushing governments to privatize but did not have an independent effect on the type of regulatory content. The size of debt service as a proportion of total exports measures the leverage of foreign creditors. This variable is not significant in the selection equation but it does shape the content of regulation reform; a larger debt made a market-conforming content more likely, suggesting that granting more leverage to investors increased pressures for reducing regulatory discretion. This finding conforms to the expectations of the literature on "obsolescent bargain" that suggest that such discretion could favor regulatory expropriation once foreign investors have sunk their capital in sectors where exit is costly (Vernon 1971).

We get some sense of consumer effects by assessing the impact of electricity consumption. As we would expect, we find that consumption has a positive effect on the choice of more market-controlling, rather than market-conforming regulations, as reformers respond to higher demand for electricity by establishing regulators that have more power over investment and service to respond to those pressures. We also include growth rates which should be positively associated with electricity demand and should impact on the energy needs of large users, whom we expect are more likely to prefer market-conforming regulations that prevent regulatory expropriation and generate incentives to invest in the most profitable sectors. We find, however, no effect and this variable is dropped from Model (4).

In sum, our results support the hypothesis that although the widespread adoption of privatization in the Latin American electricity sector reduced the effect of partisanship on policy choice during the studied period, the identity of incumbents continued to affect policymaking by shaping regulatory design. The persistence of partisan policy preferences in Latin America in the last part of the twentieth century has often been ignored because it did not affect privatization, but rather the less publicly salient dimension of regulatory reform. However, we have shown here that incumbent preferences were indeed crucial in shaping the policymaking process, even in a context where external constraints limited policymakers' room to maneuver. Our statistical analysis shows that domestic institutional constraints also shaped policy content suggesting complementarities between the original preferences of incumbents and the process of negotiation between incumbents and their opponents in the new Latin American democracies. Both effects suggest the importance of citizens' votes in shaping the policymaking process in the region.

4. Conclusion

This article qualifies the literature on globalization by showing that politicians retain policy agency even under strong financial constraints while also making a contribution to our understanding of the politics of regulation and the role of ideological choices on seemingly technical decisions. We show how, in electing different incumbents, the Latin American voters affect the type of regulatory framework adopted at the time of electricity privatization. This finding contributes to a larger literature that shows partisan effects on regulatory policymaking in Latin America during this period. For instance, Brooks and Kurtz (2007) find partisan effects on capital account regulations and Murillo and Schrank (2005) on regulations for collective bargaining, both of which are policy reforms with relatively low salience, during this period. Like these authors we focus on a less salient and more technically complex aspect of policymaking and in so doing, we highlight the impact not only of distributive effects, but also of ideological legacies on policy choices.

Because the literature on regulatory policymaking in advanced countries has traditionally emphasized political incentives for highly salient policies that can generate electoral threats and the power of interest groups for the lowly salient regulatory policies (Lowi 1964; Jones & Baumgartner 2002), our contribution is to show the impact of political incentives on public utility regulation at a time when private providers were not yet influential players. In so doing we shift the prior emphasis of the literature on expertise, which has obscured the impact of partisan considerations on regulatory design and the role of partisan experts in countries that lack an effective civil service.

This article also contributes to our understanding of domestic policymaking processes. Our findings speak to the literature on the institutional determinants of policy choices by underscoring the importance of exploring not only the number of veto points and divergence (or convergence) of interests in the policymaking process but also how the preferences of policymakers originate. Whereas this literature has typically taken the preferences of key actors as given, our article highlights the importance of looking carefully at the origin of policymakers' preferences to understand how they interact with the institutional environment to produce particular types of policy outcomes.

Finally, in showing the centrality of policymakers' ideological legacies in understanding policy outcomes, this article also helps explain subsequent trends in policymaking in Latin America. Once the commodity boom reduced regional financial constraints in the 2000s, we observe more dramatic variation in incumbent preferences generating distinct patterns of policymaking (Murillo *et al*. 2010; Weyland *et al*. 2010). Indeed, *statist* legacies allowed some of the former *statists* privatizers to initiate a return toward policies that were reminiscent of their *statist* past. Electricity regulation, we believe, is only one indicator of the ties that these former statists had kept with their constituencies during the time when they had pragmatically adopted market-oriented reforms, and can be used – along with others – to gauge variation in their capacity to sustain those ties. For instance, some of the *statist* incumbents who privatized but adopted more market-controlling regulatory frameworks, such as the Panamanian PRD and the Argentine PJ, were relatively successful in surviving the crisis of representation that affected many parties of the region in the 2000s. By contrast, former *statist* parties that adopted regulatory frameworks that were less market-controlling, such as the Bolivian MNR, succumbed to the emergence of new populist parties that replaced them in the electoral arena.

In sum, our findings reflect a mechanism for policy agency at a time when financial pressures restricted the freedom of politicians to choose their preferred policies. However, the electoral incentives that tied them to their constituencies and forced them to compromise with their opponents were still at play and they would become more evident once financial pressures diminished. The continuity provided by inherited political coalitions and ideological legacies does not preclude change and adaptation but provides boundaries for political parties that want to survive, not just as policymaking parties, but also as office-seeking parties.

Acknowledgements

We gratefully acknowledge the many useful comments and suggestions of five anonymous referees and the editorial assistance of David Levi-Faur. We are also grateful for the comments and assistance of Stephen Gent, Justin Gross, Alison Post, George Rabinowitz, and Graeme Robertson.

Notes

1 Personal interviews with Renato Agurto and Sebastian Bernstein, 27 March 2001.
2 The opposition presented an alternative bill that was defeated instead of trying to compromise.
3 Interviews with former Secretary of Energy Carlos Bastos (December 2001), his advisor Manuel Abdala (July 2001), and former Undersecretary of Energy Carlos Legisa (9 April 2001).
4 After 36 months prices would revert to market prices plus a discount rate of 10 percent using a predefined formula (General Electricity Law, Chapter 7, Sec. 1, art. 88).
5 See for instance Moguillensky (1999, pp. 178–190) on right-wing privatization of Chilean public utilities and Azpiazu (1999) on the former-statist privatization in Argentina. Schamis (2002) also uses these two cases for his argument about privatization as a mechanism for rent seeking.
6 See Table 1 for more details. We used factor analysis to confirm that the items reflect five underlying dimensions of the extent to which regulations are *market-controlling*. To check the robustness of our results, we also constructed three alternative specifications of the IRC: an additive index that weights each of the eight items equally, an index based on four dimensions of regulatory control instead of five and an index based on results from a Rasch test which estimates the relative contribution of each item to a latent trait – in our case, market control. All four versions of the Index yield results that are as strong as or stronger than those in Table 3. See the Appendix for more details.
7 We also used a more restrictive indicator based on whether the party had nationalized the sector in the past and our main finding remains unchanged. Results available upon request.
8 Our definition resembles Haggard and Kaufman's (1995, p. 167) definition of "left and populist parties that have historically mobilized followers around anti-capitalist and anti-oligarchic protests."

9 All financial variables are lagged a year to reflect the fact that financial decisions by the government are made taking into account last year's resources. *Fiscal Position* is lagged two years to reflect the fact that our data are yearly and code all reforms in the year equally, whether they took place in January or December.

10 Since we are interested in the regulatory choices of policymakers when they privatized the industry, we only look at countries up to the year that they privatized; at that point, we record the choice of regulatory framework and countries leave the data set as they are no longer "at risk" of privatizing and choosing a regulatory framework.

11 The PRD was established to unify the coalition behind General Omar Torrijos. Torrijos led a "national populist" regime (Rodriguez Patiño 2006, p. 35), fighting for control of the Panama Canal, redistributing resources to the poor, and nationalizing the Light and Power Panamanian Company (*Compañia Panameña de Luz y Fuerza*) in 1972. The PRD has been characterized as predominantly nationalist and left of center (Franco 2001, p. 59).

12 Distances between Chile and other countries are based on a spatial weights matrix generated from data on latitude and longitude.

13 Two alternative proxies for the exposure of Latin American countries to international financial institutions (IFIs) – the *cumulative* years under an IMF standby agreement and foreign direct investment (FDI) inflows (lagged) – were not significant.

References

Artiga González A (2001) El Salvador. In: Alcántara M, Freidenberg F (eds) *Partidos Políticos De América Latina. Centroamérica, México Y República DominicanaI*, pp. 135–178. Ediciones Universidad de Salamanca, Salamanca.

Azpiazu D (1999) Privatizaciones En La Argentina. Regulacion Tarifaria, Mutaciones En Los Precios Relativos, Rentas Extraordinarias Y Concentración Económica. Working Paper 7 (April). Flacso-Universidad de Quilmes, Buenos Aires.

Bartle I (2002) When Institutions No Longer Matter: Reform of Telecommunications and Electricity in Germany, France, and Britain. *Journal of Public Policy* 22, 1–27.

Bernstein JS (1995) Establecimiento De Una Política Energética Basada En El Funcionamiento De Los Mercados Competitivos Y En La Participación Privada. Working Paper.Cepal, Santiago de Chile.

Biglaiser G, Brown D (2003) The Determinants of Privatization in Latin America. *Political Research Quarterly* 56, 77–89.

Bitrán E, Serra P (1998) Regulation of Privatized Utilities: The Chilean Experience. *World Development* 26, 945–962.

Brooks S, Kurtz M (2007) Capital, Trade, and the Political Economy of Reform. *American Journal of Political Science* 51, 703–720.

Coppedge M (1997) A Classification of Latin American Political Parties. Kellogg Institute Working Paper #244, The Helen Kellogg Institute for International Studies.University of Notre Dame, Notre Dame, IN.

Druckman J (2001) Evaluating Framing Effects. *Journal of Economic Psychology* 22, 91–110.

Franco BE (2001) *Panamá: Los Partidos Politicos En Los 90 Entre Elecciones Y Transformaciones*. Universidad de Panamá, Panama City.

Haggard S, Kaufman R (1995) *The Political Economy of Democratic Transitions*. Princeton University Press, Princeton, NJ.

Haggard S, Noble GW (2001) Power Politics: Elections and Electricity Regulation in Taiwan. In: Haggard S, McCubbins MD (eds) *Presidents, Parliaments, and Policy*. Cambridge University Press, Cambridge.

Heller WB, McCubbins MD (2001) The Case of Electric Utility Regulation in Argentina and Chile. In: Haggard S, McCubbins MD (eds) *Presidents, Parliaments, and Policy*. Cambridge University Press, Cambridge.

Henisz WJ (2002) The Institutional Environment for Infrastructure Investment. *Industrial and Corporate Change* 11, 355–389.

Henisz WJ, Zelner BA, Guillen MF (2005) The Worldwide Diffusion of Market-Oriented Infrastructure Reform, 1977–1999. *American Sociological Review* 70, 871–897.

Johnson G, Crisp B (2003) Mandates, Power, and Politics. *American Journal of Political Science* 47, 128–142.

Jones B, Baumgartner F (2002) *The Politics of Attention. How Government Prioritizes Problems*. Chicago University Press, Chicago.

Jordana J, Levi-Faur D (2006) Toward A Latin American Regulatory State? The Diffusion of Autonomous Regulatory Agencies Across Countries and Sectors. *International Journal of Political Administration* 29, 335–366.

Kaufman R, Ubiergo AS (2001) Globalization, Domestic Politics and Social Spending in Latin America: A Time-Series Cross-Section Analysis. *World Politics* 53, 553–587.

Levi-Faur D (2005) The Global Diffusion of Regulatory Capitalism. *Annals of the American Academy of Political and Social Science* 598, 12–32.

Levi-Faur D (2006) Varieties of Regulatory Capitalism: Getting the Most of the Comparative Method. *Governance* 19(3), 367–382.

Levy B, Spiller PT (1994) The Institutional Foundations of Regulatory Commitment: A Comparative Analysis of Telecommunications Regulation. *Journal of Law, Economics & Organization* 10, 201–246.

Lowi T (1964) American Business and Public Policy, Case Studies and Political Theory. *World Politics* 16, 677–715.

Madrid R (2003) *Retiring the State: The Politics of Pension Privatization in Latin America and Beyond*. Stanford University Press, Stanford, CA.

Manzetti L (2009) *Neoliberalism, Accountability, and Reform Failures in Emerging Markets: Eastern Europe, Russia, Argentina, and Chile in Comparative Perspective*. Pennsylvania State University Press, University Park, PA.

Moguillensky G (1999) *La Inversión En Chile: El Fin De Un Ciclo En Expansión?* Cepal, Santiago de Chile.

Murillo MV (2002) Political Bias in Policy Convergence. Privatization Choices in Latin America. *World Politics* 54, 462–493.

Murillo MV (2009) *Political Competition, Partisanship and Policymaking in Latin American Public Utilities*. Cambridge University Press, New York, NY.

Murillo MV, Martinez-Gallardo C (2007) Political Competition and Policy Adoption: Market Reforms in Latin American Public Utilities. *American Journal of Political Science* 51, 120–139.

Murillo MV, Schrank A (2005) With A Little Help from My Friends: External and Domestic Allies and Labor Rights in Latin America. *Comparative Political Studies* 38, 971–999.

Murillo MV, Oliveros V, Vaishnav M (2010) Electoral Revolution Or Democratic Alternation? *Latin American Research Review* 45(3), 87–114.

Remmer K (2002) The Politics of Economic Policy and Performance in Latin America. *Journal of Public Policy* 22, 29–59.

Rodriguez Patiño RD (2006) *Presidentialismo Y Sistema De Partidos. Panamá Y América Latina*. Instituto de Estudios Políticos e Internacionales, Panama.

Schamis H (2002) *Re-Forming the State: The Politics of Privatization in Latin America and Europe*. University of Michigan Press, Ann Arbor, MI.

Simmons B (1999) The Internationalization of Capital. In: Kitschelt H *et al*. (ed) *Continuity and Change in Contemporary Capitalism*, pp. 36–69. Cambridge University Press, New York, NY.

Strange S (1996) *The Retreat of the State: The Diffusion of Power in the World Economy*. Cambrige University Press, Cambridge.
Taber C (2003) Information Processing and Public Opinion. In: Sears DO, Huddy L, Jervis R (eds) *Oxford Handbook of Political Psychology*. Oxford University Press, Oxford.
Vernon R (1971) *Sovereignty at Bay: The Multinational Spread of US Enterprises*. Basic Books, New York, NY.
Vogel SK (1996) *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries*. Cornell University Press, Ithaca, NY.
Weyland K, Madrid R, Hunter W (eds) (2010). *Leftist Governments in Latin America. Success and Shortcomings*. Cambridge University Press, Cambridge.
Wood E (2000) Civil War and the Transformation of Elite Representation in El Salvador. In: Middlebrook KJ (ed) *Conservative Parties, the Right, and Democracy in Latin America*. Johns Hopkins University Press, Baltimore, MD.

Law cited

General Electricity Law 1996. Approved by Decree 843 by the Legislative Assembly, October 1996, San Salvador.

Supporting information

Additional Supporting Information may be found in the online version of this article:

Appendix
Table A.1 Definition and sources for independent variables.
Table A.2 Description of independent variables.
Table A.3 Variations on the index of regulatory content.
Table A.4 Effect of statist legacy on regulatory control (OLS for countries that privatized).
Table A.5 Regulatory choice as multinomial logit.
Table A.6 Models of regulatory choice (Multinomial logit).

Please note: Wiley-Blackwell are not responsible for the content or functionality of any supporting materials supplied by the authors. Any queries should be directed to the corresponding author for the article.

