

Crisis and Policymaking in Latin America: The Case of Chile's 1998–99 Electricity Crisis

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Summary. — This article studies the effect of sectoral crises on policy reform by emphasizing the conflictive incentives generated by public demands for a solution. On the one hand, the crisis provides the opportunity for bypassing veto points for technical innovation. On the other hand, if simultaneous with increasing electoral competition, it reduces the time horizons of policymakers and their propensity to adopt reforms of uncertain effects for them. Our research traces these on the Chilean 1998–99 electricity crisis, and assesses their impact on policy change through a comparative analysis of reform contents. This article shows how electoral effects prevailed in the context of upcoming competitive elections, suggesting the importance of introducing electoral competition in the study of crises effects on policymaking in the region. Our research strategy for tracing incentives and opportunities generated by crises can travel to other cases to further our understanding of crises' effects on policymaking.

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1. INTRODUCTION

Recent debates about economic policymaking in Latin America emphasize the role that crises play in bringing about macroeconomic reforms. Crises demonstrate the failure of existing policies, thus prompting leaders to change the status quo and encouraging the public to accept policy change. Although the consequences of microeconomic crises can be more clearly traced to sector-specific policies than can be the consequences of macroeconomic crises, the role of microeconomic or sectoral crises in promoting policy change through public pressure has not yet been studied. Tracing and assessing the effect of sectoral crises on policy reform in Latin America will help improve our understanding of the effects of external shocks on regulatory policymaking. This is important because the incentives generated by crises, especially in the electricity sector, have been shown to foster both pro-market reforms and their reversal (Henisz & Zerner, 2005; Ruffin & Rangan, 2004). These effects are more relevant as public discontent with the privatization of public utilities is increasing in the region.¹

The aim of this article is to enumerate mechanisms linking sectoral crises with policy change that can later be used to test the effects of crises on policymaking in other cases. We use the Chilean 1998–99 electricity crisis to show how the policy effects of sectoral crises can be traced and to highlight the incentives these crises create for policy reform. A qualitative study of a single country allows us to identify the incentives generated by public pressure on policymakers for changing the status quo by either increasing their propensity for risk-taking through technical innovation or pleasing their electoral constituencies. On the one hand, prospect theory suggests that public opinion effects of crises put policymakers in the “domain of losses,” thus creating incentives and opportunities for policy innovation whose immediate effects are uncertain.² On the other hand, we emphasize the importance of assessing the impact of electoral competition in the calculus

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of policymakers as crises increase the public salience of policy issues thereby affecting the likelihood that they may weigh on the short-term electoral decisions of voters.³ We assess its policy consequences in terms of technical innovation, comparing it longitudinally with two other reforms in the same sector and with a contemporaneous reform in the water sector in the same country—all these other policy reforms were not achieved under the pressure generated by a crisis. This within country comparison allows us to keep crucial variables affecting policymaking constant in order to evaluate what level of innovation was feasible in the Chilean political context.

The Chilean electricity crisis is an ideal case for tracing the causal mechanism behind policymakers' choice for policy reform. Chile has been a world leader in electricity reform and its example has deeply influenced the rest of the region. Technocrats dominated the government, and so it should have been easier for them to take advantage of the opportunity provided by the crisis to implement policy innovation because they were aware of the regulatory shortcomings of the electricity system before the crisis. Moreover, the incumbent coalition at the time of the crisis had opposed the original reform of the sector and was not perceived as linked to the original policies, combining the conditions of the leadership that were proposed by Weyland (2002) as important to foster policy innovation under crisis in his application of prospect theory to economic policy reform. At the same time, the crisis had deep effects on public opinion in an election year when the government was facing mounting electoral competition, generating conditions to please residential consumers as voters by focusing on issues of high face value to voters, perceived as having a direct effect on them.

The article is divided into five sections. Section 2 presents the hypothesized effects of crises and electoral competition on policy reform. Section 3 summarizes the evolution of the Chilean electricity system until the 1998–99 crisis. Section 4 analyzes the effects of the crisis on Chilean policymakers' incentives for policy reform. Section 5 presents the governments reaction to the crisis. Section 6 compares the policy outcomes under those conditions with other reforms implemented by the same governing coalition. Finally, Section 7 concludes with some implications for the study of policymaking in the region.

2. CRISIS AND POLICY REFORM

The political science literature on the effect of crises on domestic policy reform has been mainly built upon on studies of policy reaction to the Great Depression. Among them, Gourevitch (1989), Hall (1989), and Blyth (2002) analyze the failure of previous policies in dealing with the Depression and bringing about the adoption of new economic policies in the advanced industrial countries. The economic crisis generated an external shock that discredited the prevailing policy ideas and allowed policymakers to adopt new policy paradigms (Hall, 1993).

In the Latin American literature, the last decade of the 1980s, which followed the Debt Crisis, is used in a similar way. During the 1980s, macroeconomic crises that ended in hyperinflation encouraged neoliberal policy reform—that is, the adoption of stabilization policies and pro-market reforms and the abandonment of import substitution industrialization (Edwards, 1995; Rodrik, 1996; Torre, 1998). Stallings and Peres (2000) show that the intensity of macroeconomic crises correlates with the speed and scope of reforms in the region. As a result, the literature on macroeconomic reforms in the 1980s and 1990s considers crises to be beneficial for policy reform; these crises make policymakers adopt bold policy innovations and induce citizens to accept them (Drazen & Grilli, 1993; Haggard & Kaufman, 1995, pp. 199–201). Conversely, in their analysis of infrastructure reforms, Henisz and Zelner (2005) argue that the probability of a coalition supporting change in the market institutions adopted during this period is higher after an exogenous shock, such as a crisis. On the other hand, Rodrik (1996) criticizes the instrumentality of crises in fostering change and argues that crises signal the failure of policies that are being replaced by reform, whereas Corrales (1997–98) adds that domestic tolerance for crises vary, making it impossible to define *ex-ante* which crises will bring about reform.

Weyland (2002) applies prospect theory to the analysis of crises' effects on policy reform. Following Kahneman and Tversky (1984, 2000), Weyland (2002) uses prospect theory to argue that crises make individuals feel that they are in the “domain of losses,” which generates risk-seeking attitudes in an attempt to recover from those losses, in contrast to the risk aversion provoked by the perception of being in the domain of gains (p. 5). The risk-seeking

attitude generated by crises overrides the status-quo bias or loss aversion preferences characteristic of policymakers, thereby allowing policy innovation (p. 46). His argument is exemplified by the Latin American macroeconomic crises—characterized by hyperinflation—which put policymakers in the domain of losses and thereby increased their propensity to take the risks associated with policy innovation. In this situation, new leaders who can separate themselves from the policies perceived to cause the crisis are more prone to take the risk of adopting new policies whose uncertain consequences promise a potential solution to the crisis. Simultaneously, the population becomes more tolerant of innovation for fear of the consequences of crises—in this case, hyperinflation, which dramatically hurts their purchasing power.

The empirical study of crises in the region remains centered on macroeconomic crises, while the policy effects of sectoral crises remain understudied.⁴ The effects of sectoral crises can be dramatic in terms of purchasing power (i.e., price hikes), access (i.e., rationing), or safety, and so may generate strong public pressures on policymakers. Sectoral crises with high public visibility and costs should put policymakers in the domain of losses and generate pressures for policy innovation, just as macroeconomic crises do. Moreover, as macroeconomic crises provide opportunities to pass reforms that go beyond macroeconomic stability (Rodrik, 1996), microeconomic crises should also provide opportunities for technical innovation based on the demand for changing the status quo.⁵

Microeconomic crises generate both incentives and opportunities for innovation. When crises are highly visible and costly for the population, policymakers have an incentive to change policies while the cost of opposing such reforms increases as policymakers can rally the public behind their policy solution to the crisis and concentrate power to overcome traditional veto points (Haggard & Kaufman, 1995, p. 200). Whereas these incentives suggest the use of crises to pass policy reforms of broad impact based on previous technical assessment, the incentives generated by electoral competition should also be considered. Increasing electoral competition along with the salience provided by the crisis should induce policymakers to prioritize voters' consideration rather than technical rationality. Hence, the most salient the policy issue and the most likely to influence

the electoral decision, the most will consumer nontechnical preferences weigh on policymaking. Indeed, small consumers—*qua* voters—are unlikely to master reforms of high technical complexity, but instead will focus on the face value impact of policy reforms on themselves.

To assess the effect of a sectoral crisis on policy reform, we will outline the incentives generated by the crisis regarding the maintenance of the status quo, conditions for overcoming veto players opposed to policy reform, and the type of issues addressed by reforms. We then trace the effect of alternative incentives in defining policymaking under crisis conditions.

3. THE CHILEAN ELECTRICITY SECTOR BEFORE THE CRISIS

The Chilean electricity system was dramatically reformed during the 17-year military rule of Gen. Augusto Pinochet. There are two main interconnected electricity systems in Chile, the Central Interconnected System or SIC, and the Northern Interconnected System or SING, as well as two small systems in Chile's southern region. Prior to Pinochet's reform, the SIC—which accounts for 80% of installed capacity—was divided into two vertically integrated companies: Chilectra—serving the central region—and Endesa—for the rest of the country.

Electricity reform was put into place by a 1982 law (DFL 1 of the Mining Ministry), which allowed the division of the companies vertically and horizontally to create a competitive wholesale generation market for large consumers (with a maximum demand in excess of 2 MW) where an independent dispatch operator—Economic Load Dispatch Center (whose acronym in Spanish is CDEC)—would compute prices. Endesa was divided into six regional distribution companies (hereafter *discos*), four generation companies (hereafter *gencos*), and one transmission company (hereafter *transco*) in the SIC. Chilectra was divided into one *genco* (Chilgener later Gener) and two *discos* (Chilquinta and Chilmetro) (Moguillansky, 1999, pp. 173–175). The 1982 law did not regulate either property concentration or entry—licenses and supply obligations were not needed to enter generation, and transmission monopolies were abolished. Endesa was sold with the transmission grid (later operated as Transelec). The holding Enersis that owned the *discos* Chilectra and Rio Maipo gained control of Endesa in 1993 and later purchased the *genco* Pehuen-

che, which possessed 10% of the installed capacity.

The 1982 electricity law transformed the preexisting National Electricity Commission (CNE) into a regulator. Its discretion was curtailed by the legal imposition of a pre-defined methodology used to determine distribution prices.⁶ Transmission fees were left to the agreement of the parties, with arbitration in case of disagreement. Additionally, the regulator had no role in and very limited information on the working of the CDEC.⁷ The CNE was a decentralized agency consisting of a council of seven ministers, an Executive Secretary appointed by the President, and only 24 employees. Moreover, it was not until 1985 that law 18,410 transformed the Superintendence of Electric, Gas, and Telecommunications into the Electricity and Fuels Superintendence (SEC), in charge of quality of service and installations safety.⁸ The SEC was poorly equipped in terms of human resources, budget, infrastructure, and sanctioning power (Inostroza, 1995; Rivera, 2000, p. 179).

Thus, under the military rule, electricity reforms were dramatic both in terms of scope and innovation. The government was able to abolish cross-subsidies, which led to increases in the residential price of electricity by more than 700% during 1974–82 (Spiller & Viana Martorell, 1996, p. 120). Nonetheless, public outcry against the reforms was minimal, due to the lack of civil liberties and freedom of the press, and the reforms were accomplished without public protests.

In 1990, the military regime was replaced by democracy following a transition scheduled by the authoritarian ruler. After transition, the binomial electoral system favored the creation and subsistence of a center-left and a right-wing electoral coalition that had a high degree of ideological coherence and legislative discipline within each of them (Carey, 2002). The center-left coalition gathered Christian Democrats, Socialists, and other smaller parties that had opposed the military rule of General Pinochet, whereas the right-wing coalition represented two political parties whose members had participated in that regime (Huneus, 2000).

The 1980 Constitution approved under Pinochet established a president with the highest proactive powers in the world (Shugart & Carey, 1992). However, Siavelis (2002) shows that during the two first democratic administrations of presidents Aylwin (1990–94) and Frei (1994–2000), neither president resorted to using these

strong presidential powers to impose his will on the legislature. Both presidents belonged to the center-left coalition “*Concertación de Partidos por la Democracia*” (hereafter *Concertación*), which controlled the executive and the Lower House but not the Senate—due to the existence of nonelected Senators. Both presidents chose to achieve their legislative goals through negotiation with the opposition. This consensual behavior was promoted by the binomial electoral system, which made it difficult to transform electoral majorities into legislative majorities; by the lack of a unified government that would have provided legislative discipline to the president, and by the *Concertación* reluctance to use presidential proactive powers to overcome legislative stalemates for fear of legislative defeat (Aninat, Londregan, Navia, & Vial, 2004, p. 16; Siavelis, 2002). As a result, after the establishment of democracy, policymaking was characterized by a consensual pattern that pre-empted the sudden policy swings that had characterized Chilean politics in the previous 30 years (Navia, 2004; Siavelis, 2000). This consensual pattern, along with agreements made with the outgoing military rulers to guarantee the transition, explains why, despite having criticized the privatization processes during military rule, the parties in the *Concertación* did not challenge the privatization of electricity after winning the first democratic election in 1990.

Although it accepted electricity privatization, the first *Concertación* administration attempted to reform the sector based on the regulatory shortcomings identified by its technical teams. The problems identified before the 1998–99 crisis in the electricity sector could be divided into three categories: those related to the structure of the system (mostly derived from the lack of regulation of property concentration), those related to the regulation of prices, and those related to the weakness of regulatory powers and capacity.

Firstly, the lack of competition was considered a crucial problem resulting from property concentration and vertical integration. Although the regulatory system assumed the existence of competition in generation, property concentration was very high in that segment because Endesa held 60% of allocated non-consuming water rights, which restricted entry into hydroelectric generation (Bitran & Serra, 1998, pp. 939–940). Also, there was vertical integration that allowed Enersis to control the two main distribution companies, the transmission

grid, and the main generation company, thereby facilitating discrimination against competitors (Bitran, 1998; Bitran & Saez, 1994). These problems were magnified by the lack of institutionalization of the CDEC, in addition to the requirement that it will resolve any conflict by unanimity, thereby delaying decision making (Bitran & Serra, 1998).⁹

Secondly, technical studies identified several problems with the regulation of prices. These include ambiguities regarding transmission pricing rules (which increased the risk for new entrants) and the fact that the node price was defined as a mechanism for price smoothing that prevented consumers from facing the actual cost of energy. Additionally, there were obvious incentives for each party to bias the estimates of the simulated efficient firm in the calculation of value-added for regulated distribution prices because it was based on a weighted average between the estimates of CNE's and providers' consultants (Bitran, Estache, Guash, & Serra, 1999; Bitran & Saez, 1994; Bitran & Serra, 1998). Finally, there was uncertainty over the fee for transmission paid by unregulated customers located in the franchise area of distribution firms (Bitran *et al.*, 1999).

Thirdly, regulators faced several shortcomings. These included information asymmetry about production data, the lack of qualified personnel and adequate infrastructure, the absence of a rule prohibiting regulators from working for regulated companies (which facilitated capture by providers), the lack of independence from the president (i.e., regulators were political appointees), and their budgetary dependence on the Treasury (Bitran, 1998; Bitran & Saez, 1994; Bitran & Serra, 1998; Inostroza, 1995). Indeed, Bitran and Serra (1998) argue that the major regulatory shortcoming of the electricity sector was the weakness of regulators produced by these conditions.

After an electricity bill prepared during the Aylwin administration (1990–94) was delayed and never introduced in Congress, the second *Concertación* administration under President Eduardo Frei (1994–2000) decided to introduce a statute by decree, thereby excluding Congress from the reform. This decision was intended to circumvent resistance by private providers, who feared that a legal reform would reverse the privatization process and could jeopardize the technical character of reforms. Additionally, the CNE technical staff also wanted to isolate technical changes from public opinion pres-

ures so as to accelerate the process of reform and to impose technical standards rather than political interests. Simultaneously, the government tried to reduce property concentration by excluding existing private companies from the privatization of the remaining large utilities in the SIC (Colbún) and facilitating the import of gas from Argentina for thermal utilities (Rivera, 2000).

The goal of speeding the reform process failed as the statute was originally proposed in 1994, but due to extended consultations to get the support of private providers was only approved in December 1997 and not sanctioned as DS 327 until September 1998.¹⁰ DS 327 addressed some of the mentioned regulatory shortcomings in electricity. It increased the number of firms with representation in the CDEC board to those with capacity for generating higher than 9 MW (from 60 MW before the reform) as well as to transcos. It also made the operation of its board independent of firms by establishing a professional board whose decisions by majority were binding until the Ministry of the Economy issued a decision. It also reduced the time allotted to the Ministry of the Economy for resolving those conflicts from 120 to 60 days. It defined transmission fees—by establishing the power of the CDEC to propose areas and fees while conflicts were to be resolved by arbitration. The statute also established, for the first time, quality parameters for distribution (monitored by the SEC), obligated distribution companies to bid on their supply from generators (to avoid preferential buying within the same business group), and created the methodology to determine the available energy in generation (Díaz, Galetovic, & Soto, 2000; Fisher & Galetovic, 2003; Serra, 2002). The statute was approved shortly before the 1998–99 energy crisis and its reforms had not been implemented at the time of the onset of the crisis. Moreover, the statute did not provide the SEC with strong sanctioning power to enforce these changes (Serra, 2002, p. 18).

4. THE ELECTRICITY CRISIS AND THE INCENTIVES FOR REFORM

The 1998–99 electricity crisis was visible and costly enough to generate public pressure on policymakers to change the status quo and opportunities for a technical reform of the sector. Meanwhile, the heightened electoral competition shortened the time horizons of

policymakers in responding to the crisis. The crisis started during 1998 as Chile suffered from a harsh drought, which, compounded with the delay in the incorporation of a major new utility due to technical problems, produced an energy shortage. On November 11, the failure of a thermo-electrical utility led to unexpected power shortages in the SIC, prompting the government to pass a rationing decree on November 12 (which was sanctioned the next day) and marking the official start of the electricity crisis. The energy deficit reached 7.6% in April, 6.1% in May, and 3.6% in June 1999 (CNE, 1999, p. 12) suggesting the depth of a crisis.

The public effect of the crisis was magnified by the broad electricity coverage—97% of Chileans had electricity service by 1998 (MIDEPLAN, 1998). Indeed, its public visibility is indicated by the extent of press coverage and sentiment expressed by public opinion surveys. From the start of shortages, on November 11, 1998, until the end of the month, two major newspapers (the right-wing *El Mercurio* and the government-owned *La Nación*) covered the electricity crisis almost everyday. During these 19 days of November 1998, *El Mercurio* included on average 2.1 articles related to the electric crisis per day (and 0.7 front-page articles per day) while *La Nación* published 4.3 articles per day (and 0.5 front-page articles per day). Because rationing ceased between November 24, 1998 and April 1, 1999, press coverage diminished correspondingly during this interim period. Yet, when rationing restarted in April, *El Mercurio* published 0.4 daily articles on the crisis (and 0.3 front-page articles) and *La Nación*, 1.9 articles (and 0.7 front-page articles) per day. The population was not only aware of the crisis, but also concerned about its costs. In May 1999, a third of the population (28.9%) in the metropolitan area of Santiago and 24% of the total population considered electricity shortages to be the main problem facing the country. In polls of Santiago residents, concern regarding the crisis only trailed concern regarding “the economic problems derived from the Asian crisis” (29.3%). The crisis was of greater concern to the Santiago population than either “delinquency” (27.9%) or “the imprisonment of Gen. Pinochet in London” (6.2%). Additionally, two-thirds of the Santiago population felt harmed or very harmed by electricity rationing (CEP, 1999; MSGGMay 1–2, 1999, 1999). Therefore, the likelihood of these perceptions influencing their electoral decisions was high.

Pressures from residential users on policymakers were felt mainly through public opinion because consumers did not organize protests or file complaints with the SERNAC (National Consumer Committee) (*La Tercera*, May 2, 1999).¹¹ By contrast, large users—represented by the main business association (CPC or Confederation of Production and Commerce)—complained raucously while criticizing both the electricity companies and the government—in particular for the lack of planning regarding the use of water during a period of drought (*La Tercera*, November 24, 1998).¹² The public cost of the crisis, thus, generated incentives for policy innovation.

Heightened electoral competition with a presidential election scheduled for December of that year further increased the costs of the crisis for the government while shortening its time horizons. Public concern with the crisis coincided with a deteriorating public opinion about the government due to a slowdown of economic growth and growing unemployment. The percentage of the population considering the country as either stagnant or in decline increased from 56% to 78% during June 1998 and May 1999 (CEP, 1998, 1999), and while 55% believed poor government management was responsible for the economic problems, only 24% blamed the Asian crisis (CEP, 1999). As a result, presidential approval rates had fallen to 32% (and disapproval had risen to 40%) while electoral competition was growing. Six months prior to the previous presidential election, the victory of Eduardo Frei had not been in question, with almost 52% of the people spontaneously mentioning him when asked about their presidential preferences and no opposition candidate gathering more than 5%. In contrast, seven months before the December 1999 presidential election, support for the *Concertación* candidate Ricardo Lagos was 32% whereas that of his main rival, right-wing candidate Joaquín Lavín, was 21% (CEP, 1993, 1999). Indeed, electoral competition in 1999 was such that the incumbent coalition ultimately won the Presidency only in a second round and by just a 2% margin. Increasing political competition, thus, generated incentives to please residential consumers—the largest group of voters—due to the high visibility of the policy issue and its potential effect on the vote.

In particular, the crisis risked alienating a core group of *Concertación* constituencies that were crucial in such a competitive electoral

environment. From 1994 to 1998, independent voters leaned toward *Concertación* parties. That is, the number of independent voters moved in the opposite direction of those identifying with the *Concertación* (CEP, 1994–98). Yet, in May 1999, a decline in the number of independents coincided with an increase in those identifying with opposition parties (CEP, 1999), thereby suggesting a change in partisan leaning among the most independently minded voters. The greatest increase in the percentage of individuals identifying with the opposition occurred among the low-middle class (C3 socioeconomic strata according to CEP surveys). This group, along with the upper classes (ABC1 group), was the most concerned about the electricity crisis (CEP, 1999). Because the upper classes mostly vote for the opposition and have a very limited weight in the electorate, the *Concertación* should have been concerned about losing voters in the C3 group, which constitutes approximately 35% of the population and had traditionally been among the center-left coalition's core constituencies.

As the electricity crisis was visible and costly for the population in a context of heightened electoral competition, it generated incentives to change the status quo. The effects of the crisis generate opportunities to overcome the resistance of veto players and incentives to adopt an innovative technical reform addressing the previously identified regulatory shortcomings. By contrast, increasing electoral competition should have prompted policymakers to prefer a reform of less-technical character whose immediate consequences appealed to consumers as voters and were more certain to politicians. The following section traces the response of the government to these incentives.

5. THE GOVERNMENT REACTION TO THE CRISIS

The crisis created incentives for policy innovation. On the one hand, by taking advantage of public pressure, the government gained the opportunity to overcome veto points to address the regulatory shortcomings of the electricity sector. This opportunity was crucial not only in light of the accumulation of regulatory shortcomings in the sector, but also because the government did not control Congress and was always facing potential veto points to pass its reforms. On the other hand, upcoming electoral competition shortened time horizons for policy-

makers and their propensity to pursue technical innovation of more uncertain effects.

Although the crisis was triggered by a drought and the technical problems of a major utility, it was also blamed on regulatory problems. According to Rivera (2000, p. 13), regulators lacked capacity to obtain adequate information from providers and to sanction quality failures so as to create the correct price incentives. The DS 327 would have solved some of these problems with the institutionalization of an independent CDEC's operation board with legally binding decisions, but it had not been implemented at the onset of the crisis. Others point to government failures in handling the crisis. Despite projections of drought, the Ministry of Public Works sold to Endesa reservoir water earmarked for irrigation whose use displaced thermal generation. Furthermore, the Ministry of the Economy delayed rationing and took 120 days to solve intercompany conflicts in the CDEC over the price to be paid for energy during rationing despite the rapid recommendation of the CNE.¹³

The crisis generated not only incentives to implement regulatory reforms, but also provided an opportunity to pass electricity reforms that had been stalled before, especially since the sale of Endesa to a Spanish company had reduced the links between the companies and right-wing politicians, who could veto the process.¹⁴ Indeed, the president of the CNE appointed during the crisis, Oscar Landerretche, announced the electricity bill stressing that this was the opportunity for structural reforms in the industry (Rozas, 1999, p. 45). The executive used its proactive powers to accelerate reforms through the legislature while blaming the electricity companies for the crisis, and thereby deterring their ability to veto policy changes.

First, the government identified regulatory shortcomings, such as regulatory weakness, the lack of institutionalization of the CDEC, and the low cost of sanctions to the companies (cheaper to pay than the outage cost) as causing the crisis (Rivera, 2000). Hence, on December 16, 1998, it sent a bill to Congress increasing SEC powers for sanctioning and overseeing companies and substantially increasing the value of sanctions. The initial project only referred to Law 18.410 which regulates the SEC—although the final law also modified the DFL 1 of 1982 (*La Tercera*, December 4, 1998, and December 16, 1998; BCN, 1999, p. 2). Whereas the original modifications tended to address regulatory weakness, the main

modification introduced during the legislative debate (even rationing) was aimed at gaining consumer support.

The government used presidential proactive powers to accelerate the approval of the law and overcome veto points in Congress. On December 16, President Frei sent the bill to Congress (BCN, 1999, p. 2). Although the Congress had met in extraordinary sessions and discussed other bills during December and January, the legislative discussion on the electricity reform was stalled until President Frei used his powers to accelerate the legislative debate.¹⁵ President Frei asked for “high urgency” on April 4 and 21 to accelerate committee discussions in the Lower Chamber and then requested “immediate discussion” in the debate on the Lower House floor, thereby forcing a simultaneous discussion of the details of reform and the reform as a whole. He also demanded “immediate discussion” in the Senate, obtaining a vote—after modifications—in a single day. Subsequently, the project passed again to the Lower House where “immediate discussion” produced a one-day session in which Senate modifications were rejected, thus sending the project to the Conference Committee, where the use of “immediate discussion” led to the bill being passed by both Chambers three days later on May 19th and sanctioned as law 19,613 on June 2, 1999.¹⁶ Although some opposition legislators objected to the urgency of the debate, the government argued that the emergency caused by the crisis justified the shortening of the discussion to ensure a rapid solution.¹⁷

Second, in overcoming the veto of private providers and in shifting the blame for the crisis, the government publicly accused the private gencos of providing false information about their installed capacity and of disregard for the general interest.¹⁸ The fact that the company providing information to the CDEC regarding predicted water availability (Ingen densa) was linked to Endesa generated conflicts of interest and further suspicion of the companies. Indeed, some *Concertación* legislators suggested that the deficit was related to providers’ demands for higher prices after the 1996 decrease in distribution prices (*La Tercera*, March 21 and 22, 1999). The government even threatened the firms with the application of article 6 of the Law of Internal Security, which would have permitted the imprisonment of the legal representatives of the firms (El Mercurio, November 14, 1998; *La Tercera*, November 17, 1998). The government was also successful

in putting the blame on the companies and appearing proactive: two-thirds of the metropolitan population said that the government was helping to solve the crisis and only one-third said that it was not. By contrast, only one-third of respondents said that the companies were helping to solve the crisis and two-thirds responded that they were not (MSGG, 1999, May 1–2). In this context, the government demanded the companies to expand installed capacity for 500 MW (Frei, 1999a). Simultaneously, *Concertación* legislators demanded higher fines and suggested taking advantage of the opportunity to address other regulatory shortcomings, by banning vertical integration and strengthening the regulator (*La Tercera*, March 15). In sanctioning the bill into law, President Frei argued that it allowed the state to demand that companies fulfill their public service obligations (Frei, 1999b, p. 5).

However, government actions could also suggest electoral opportunism in managing the crisis. The government tried to rally public opinion in support of its legal reforms. In doing so, it seemed more driven by blame shifting and building public support than overcoming veto points for a technical reform. It established an energy-savings campaign—with no meaningful effect on shortages but promoting the perception that the public sector was sharing the cost of shortages and that the public also had a responsibility in the management of the crisis¹⁹—and even avoided rationing during December 1998 and March 1999 when the energy deficit was temporarily eased so that consumption increased during January and February despite forecast of deficits ahead (Díaz *et al.*, 2000). Additionally, the government successfully used public opinion surveys to foster its management of the crisis and support for its reforms as shown by three surveys of the Santiago metropolitan area: the first shortly after the rationing decree, the second before and, the third shortly after the bill was sent to Congress.²⁰ By May 1999, 90% of the metropolitan population supported the government demand that companies increase investment while 83% favored even rationing, 89%, compensation for consumers, 97%, the hike in fines for companies, and 93%, the strengthening of SEC powers (MSGG, 1999).

In short, the government responded to the crisis by taking the initiative in passing a legal reform, rallying public opinion to its support, and using the proactive powers of the president to accelerate the passing of the law. The speed

of the reform, though, is not sufficient to answer whether the government took the opportunity to foster technical innovation. To answer that question, the following section discusses what was the content of the law and how it related to the opportunities and incentives generated by a crisis and those defined by electoral competition. The next section focuses, thus, on whether policymakers used this opportunity for substantive innovation in a sector where previous reform had been stalled or whether they focus on modifications that promised immediate electoral returns from alienated consumers.

6. THE ELECTRICITY REFORM OF 1999 IN COMPARATIVE PERSPECTIVE

Although the crisis provided the *Concertación* with an incentive and an opportunity for innovation, the reform was modest when compared with other instances of policymaking in the Chilean electricity sector or similar reforms by the same incumbent coalition. This section compares the conditions and outcome of this reform (law 19.613) with those of two other electricity reforms and the water reform, all passed by the same incumbent coalition: the electricity statute discussed above, the 1998 water services law, and electricity law 19,940 of 2004. This comparison provides some measure of the range of feasible innovation and shows that law 19,613 entailed only modest technical reform whereas its most innovative aspect concern the immediate rights of residential users.

(a) *The 1999 electricity reform*

In proposing the reform, the government emphasized the weakness of the regulatory institutions *vis-à-vis* private firms and the need to strengthen the SEC's monitoring and sanctioning power, which had been blamed on the crisis. Additionally, the reform addressed compensation for users, the distribution of rationing among users, the causes attributable to *force majeure* in defining rationing, and SEC's human resources management (Frei, 1999a). Other previously identified regulatory shortcomings were not included into the bill. Not even the need to deal with the lack of competition in generation and the lack of enforcement of the Anti-Trust committee ruling on the sale of Transelec to deal with vertical integration, which were explicitly mentioned in a report on the crisis produced by the Lower Chamber

in January 1999, were included (Cámara de Diputados, 1999, p. 122). Indeed, the two major changes—causes for *force majeure* and even distribution among users—were not in the original bill and were only included by the executive during the legislative debate, which suggests that the government did not use this opportunity to establish technical innovation, by overcoming the resistance of veto players.

Firstly, the executive bill strengthened SEC sanctioning power by increasing fines on companies for failing to comply with quality and information demands. The increase in fines was substantial since the new maximum fine was set at 10,000 UTA, which was 240 times the original fine. Not only were sanctions increased substantially, but if a company wanted to appeal a fine, it was forced to pay a quarter of the fine's value to start a judicial appeal. The size of fines was not seriously contested in the Congress, although opposition legislators contested the requirement that companies pay fines before appealing them in Court. Their opposition reduced the amount that companies had to pay in order to appeal a fine from the 100% payment as first proposed by the government to 50% (Lower House bill) and ultimately to 25% (Art. 19 of the law 18.410).²¹

Secondly, the law increased SEC's controlling powers and regulatory discretion. It augmented SEC's discretion in interpreting and implementing rules specified in the law and the statute (article 3, inc. 34 of law 18.410), and in limiting electricity consumption during rationing (inc. 38). It also obligated companies to provide the SEC with information in the form demanded by the authorities, and established SEC's right to require companies to hire and pay an independent auditor when it had doubts about the information they provided (Article 3B of law 18.410). Opposition legislators unsuccessfully attempted to limit SEC discretion and its leverage *vis-à-vis* the companies.²²

Thirdly, it imposed a three-year restriction on the SEC director and functionaries' ability to disclose private information (Art. 3E of law 18.410). This restriction did not provide protection against regulatory capture by preventing the SEC director from employment in the regulated companies for a short-term period immediately after her/his tenure, as the water law had the previous year. The government also tried to strengthen SEC human resources by increasing its personnel, giving powers to its director to move SEC employees within the internal hierarchy and end the contracts of 35% of them while

using public competition for hiring new employees (Art. 6–8 of DFL 1). The government ultimately abandoned these proposals due to opposition from public sector unions.

Fourthly, as approved, the bill established even rationing for all users, despite some debate over whether to exclude large users, some of who had contracts that paid for the higher cost of guaranteed provision of energy under any circumstances (art. 99bis of DFL 1).

Fifthly, the law established compensation for users in cases of both authorized (i.e., rationing) and unauthorized electricity cuts with support from all legislators. The only partisan disagreement in this regard was who would be assigned the amount collected for compensation in the case of unauthorized cuts—the Treasury, as proposed by the executive, or the users, as demanded by opposition legislators and finally established (Art. 16B of law 18.410) (BCN, 1999, pp. 317–318). All parties defended compensation as a consumer right (BCN, 1999, pp. 66, 73–82).²³

Finally, it eliminated the exception to pay compensation provided in the definition of *force majeure*, which had permitted the companies to argue that since the drought of the 1998–99 hydrological year was worse than the 1968–69 baseline year, it constituted *force majeure*. The previous legislation did not specify any course of action if the hydrological year was drier than the baseline one (Serra, 2002, p. 21). Because energy deficit caused by *force majeure* freed the companies from compensation, this was a very sensitive issue, but legislators in Congress favored the elimination of this ambiguity regardless of partisanship.²⁴

Although the crisis generated incentives and opportunity for innovation, and CNE President Oscar Landerretche promised structural reform, the policy change was limited in scope and did not address most of the previously identified technical problems in the industry. The reform also ignored the proposal of the parliamentary commission in charge of investigating the crisis to address vertical integration and promote the interconnection between the SIC and the SING among other radical changes (Rozas, 1999, p. 61). The changes approved addressed only the elements that either the government had publicly identified as factors in the electricity crisis or directly benefited the consumers rather than any of the other previously identified regulatory shortcomings—some of which were also linked to the crisis, such as the procedure for water allocation to

hydroelectric gencos (Díaz *et al.*, 2000; Rivera, 2000), the concentrated property structure of the SIC (Bitran & Serra, 1998; Cámara de Diputados, 1999; Rivera, 2000), and the ambiguity in the allocation of transmission costs among gencos (Bitran & Serra, 1998). The reform also ignored problems of price regulation on the distribution and transmission sectors (Bitran *et al.*, 1999). Indeed, the Minister of the Economy, Jorge Leiva publicly announced that structural reforms would have to wait until the resolution of the crisis (Rozas, 1999, p. 46).

However, the two most innovative measures included in the proposal, which were not part of the original bill of December 1998 but were introduced during the legislative debate on May 1999, suggest that electoral concerns were driving policymaking (BCN, 1999, pp. 41–44). Despite some increase in the regulatory powers of the SEC, the proposal to change its hiring practices was abandoned to keep the support of the core constituency whereas the reforms to article 99bis of DFL 1 were aimed at fostering the support of residential users at a time of increasing electoral competition. Hence, the government legislators prioritized the reforms, such as even rationing for all users (regardless of the type of supply contract they had) and compensation for consumers—that had an impact on consumers, even though the former raised technical criticism.²⁵ Electoral pressures also hit the opposition legislators, who supported the reforms catering to residential consumers (i.e., even rationing, compensations in all event, and higher fines) and resisted increasing the regulatory powers of the SEC. Finally, the limited scope of technical innovation cannot be explained by the Chilean political system—characterized by divided government and a preference for compromise by the incumbent coalition (Siavelis, 2000)—as shown below by a comparison with other public utility reforms in Chile.

(b) *A comparison with other regulatory reforms*

The conditions surrounding the 1999 electricity reform generated incentives for innovation that were much higher than the conditions behind two other electricity reforms and an almost contemporary water reform. Compared with these other reforms, the relative public visibility and speed of its approval confirms the opportunity for innovation. However, a comparison of the substantive regulatory changes in the four reforms suggests that the

government did not seize this opportunity for technical innovation, but preferred to focus on small changes, which promised immediate effects on consumers.

The 1999 electricity reform was approved faster than the other three reforms, which illustrates how the government seized the opportunity while responding to public pressure. The bill was introduced on December 16, 1998, and sanctioned on June 2, 1999 (i.e., in less than six months). By contrast, the prior electricity reform, DS 327, took over three years (from 1994 to the end of 1997), the executive bill for the water law 19,549 took over two years—it was introduced on May 16, 1995, and was sanctioned on January 28, 1998—and electricity law 19,940 (the Short Law) also took almost two years to be approved—the bill was introduced on May 7, 2002, and was sanctioned on March 12, 2004.

The use of the proactive powers of the president explains the fast approval of the 1999 reform. It was the only one of the analyzed reforms for which the president imposed the urgency status of “immediate discussion”, which restricts the discussion to a maximum of three days, as shown in Table 1. Additionally, the public visibility achieved by the 1999 reform through press coverage was much higher than

that of the other three reforms as shown in Table 2. This public attention—derived from the crisis—generated both public pressures for policy action and the capacity to rally the public behind reforms that were previously stalled by providers.

Most reforms undertaken by the *Concertación* administration were less radical than those of its military predecessors, but even using this moderate standard, the government did not take the opportunity for innovation generated by the 1998–99 crisis. The 1982 law had established major innovations in the sector as part of a larger effort at restructuring state-market relations by the military rule of Gen. Augusto Pinochet. The 1999 electricity law accepted the status quo generated by the 1982 law while fostering the regulatory powers of the SEC ignored by the 1982 law.

The 1999 law was not more innovative than the DS 327, either. The earlier statute had already increased the power of SEC for overseeing companies and had changed the CDEC's board functioning and its institutionalization. It also gave the CDEC the power to propose transmission areas and fees with conflicts to be solved by arbitration. The 1999 reform strengthened the sanctioning power of the SEC, thus reinforcing its capacity to enforce the new attributions defined by the statute. The definition of *force majeure* also complemented CDEC reforms in establishing the right incentives for the coordination of the market, while the introduction of even rationing contradicted the market logic. This suggests that the two laws are comparable in terms of innovation.

The 1998 law on water provision granted more control to the state than the electricity reform did by requiring the state to keep 35% of property in the public water companies.²⁶ The fines established for disruptions in service were lower than those in electricity, and companies were not forced to pay a percentage of

Table 1. Use of presidential powers in legislative debate

	Law 19,549 (1998)	Law 19,613 (1999)	Law 19,940 (2004)
Simple urgency	19	1	3
High urgency	13	2	3
Immediate discussion	0	3	0

Source: Compiled by the authors based on the History of the Law (BCN, n.d.).

Note: The president can withdraw the urgency status and re-introduce it later, thus explaining the repetition of the urgency status for the same legislative discussion.

Table 2. Press coverage of legislative debate (articles per day)

Newspaper	Time period	Law 19,613	Law 19,940	Statute	Law 19,549
<i>La Nación</i>	Month of congress approval	1.5	0.00	0.06	0.13
	One month before	1.9	0.00	0.00	0.00
	Two months before	0.5	0.00	0.00	0.03
<i>El Mercurio</i>	Month of congress approval	0.5	0.10	0.03	0.20
	One month before	0.4	0.10	0.00	0.13
	Two months before	0.4	0.10	0.00	0.00

Source: Compiled by authors from the newspaper archives at Biblioteca Nacional, Santiago, Chile.

them in order to appeal their establishment. However, the water law established stronger provisions against regulatory capture since it imposed limits on the employment of regulators by regulated companies for three months after the end of their tenure (article 3B of Law 18.902). The DFL 382 of 1988, which regulates the sanitary sector, does not provide a definition of *force majeure*, and the 1998 reform did not address this issue, either. The electricity law 19,613, for all its use of presidential prerogatives and press coverage, was not substantially more innovative than the water reform.

The electricity law 19,940 (the Short Law) was mainly aimed at solving problems in the transmission sector—including problems in expanding transmission lines. Its reforms included the specification of the methodology for the calculation of transmission fees, the establishment of bidding procedures for new transmission lines, and the distribution of the transmission toll between the *gencos* and the consumers, which was initially set as 50% and 50% and then changed to 80% and 20% following technical advice suggesting to impose the cost of toll to *gencos* (Galetovic, 2002). The law also restricted vertical integration by introducing limits to the property of *transcos*. In particular, the law required that *transcos* are constituted as public corporations and prohibited their participation in generation or distribution. In addition, firms that participate in generation, distribution, or in the nonregulated sector can at most have 8% of the shares of a transmission firm. The law also limits to 40% the total participation in *transcos* of firms related to the electricity sector—*gencos*, distributions firms, and those related to the unregulated sector. Nevertheless, the owners of transmission lines already constructed can maintain their property, which implies that the structure of the sector will not change in the short run (Art. 7 of DFL 1). Finally, this law also introduces public authorization for the transference of property in *discos* (Art. 46 of DFL 1).

The Short Law thus addressed some important regulatory shortcomings that had been ignored by the 1999 reform and the previous statute, but which were relevant to the long-term functioning of the sector, such as vertical integration—which the Lower Chamber report on the crisis has mentioned as a key cause of the crisis (Cámara de Diputados, 1999, p. 122). The scope of the two laws was not so different, as they covered different dimensions of

the electricity sector. Moreover, only the Short Law addresses the contentious issue of vertical integration, thereby suggesting that the government did not use the emergency created by the crisis to pass innovations that could not have otherwise succeeded.

In short, although the crisis provided the *Concertación* with an opportunity for innovation, the reform was not as comprehensive as the 1982 reform or even the 1998 statute in its scope. Indeed, the electricity law that was approved in 2004 after two years of legislative debate and in the absence of any electricity emergency addressed shortcomings detected before the electricity crisis in 1998–99, which the 1999 law did not address. The most radical innovations of the 1999 law—even rationing and compensation in all event—followed electoral considerations rather than a technical consensus, suggesting that the government did not use the crisis to address the already identified regulatory shortcomings. Instead, the public salience granted to the policy issue by the crisis along with increasing electoral competition favored policy changes whose effect on residential consumers suggests political manipulation.

7. CONCLUDING REMARKS

The Chilean electricity crisis generated pressures that affected the incentives and opportunity to innovate. Public pressures generated by the crisis, along with the hike in electoral competition provoked by bad economic conditions generated incentives to change the status quo but with different objectives. On the one hand, the crisis put the government in the “domain of losses” generating incentives for technical innovation and providing public support to overcome the opposition of veto players either economic (i.e., the companies) or institutional (i.e., the Senate). On the other hand, electoral competition generated incentives to present a reform of low technical complexity but with high face value to make its immediate consequences appealing to residential users who are the majority of voters. In particular, even rationing (regardless of contractual agreements of large users), compensations for all users in any event, as well as higher fines for companies were politically attractive.

As macroeconomic crises did, this sectoral crisis put pressure on the executive to change the status quo. Yet, public pressures that put the

government in the “domain of losses” electorally did not induce the adoption of substantial policy innovation as Weyland shows in the case of macroeconomic crises in the region. Instead, the Chilean government implemented a timid reform to please residential users while resorting to political opportunism (e.g., blame shifting and an energy saving campaign). It prioritized electorally attractive clauses (e.g., even rationing) rather than using the opportunity to pass a broad reform addressing most of the already identified regulatory shortcomings in the electricity sector. Indeed, whereas the incumbent coalition was not prone to radical policymaking, the reform was not radical even if compared with other regulatory reforms undertaken by the same coalition without public pressure.

As the crisis raised the public salience of the issue, it made it more likely to enter the calculation of voters at a time of mounting electoral competition, thereby making policymakers concerned on winning short-term electoral support rather than achieving technical innovation with uncertain effects—even if the promised pay-off would be higher in the long term. Hence, in assessing the effect of the crisis on the incentives for policymakers, it is important to consider whether the later are facing electoral competition or not and what effect does it generate on their time horizons.

In other Latin American countries, crises without immediate electoral competition seemed to have been more conducive to innovation than microeconomic crises alone. In fact, the privatization of electricity in Argentina, which followed a period of sharp rationing including daily blackouts, was supported by public opinion and achieved by an incumbent party that was facing low levels of electoral competition. Thanks to growing electoral support in midterm elections, the incumbent Peronist party had increased its legislative delegation—reducing legislative veto points—and its fear of electoral competition before this reform. By contrast, lacking a publicly visible crisis—and being driven by the cost of guarantees for private investment in electricity to the Treasury—Mexican policymakers failed to pri-

vatize electricity in 1999. In this case, increasing electoral competition made PRI (Institutional Revolutionary Party) legislators afraid to take the risk of supporting a proposal introduced by their own president for policy innovation. The center-right opposition PAN (National Action Party) also shifted its position from support to rejection for fear of losing votes in the competitive 2000 presidential race—and its about face paid off as the PAN candidate defeated the PRI one.

Whereas crises can put policymakers in the domain of losses and increase their propensity to take risks by adopting policy innovation, incumbents facing short-term electoral competition are less likely to assume policy risks that may affect their political survival. Time horizons, thus, seem to be crucial in defining the incentives and opportunities defined by crisis for policy reform and future studies should include electoral competition rather than assuming that politicians will take innovation based on potential future electoral gains derived from reform—as politicians are uncertain about those effects at the time of policy change.

The study of a single country does not provide sufficient evidence to generalize from its findings, but it provides elements for further testing of other cases to assess the effects of microeconomic crises and electoral competition on policy reform. We suggest looking for the incentives derived from public pressure generated by a crisis and electoral competition in understanding the choices of policymakers at the time of policy reform. Moreover, we believe that to assess the degree of substantive innovation feasible in any political context, it is important to compare with other policy reforms subject to similar constraints. This method of tracing crisis effects on policy innovation can easily travel to other cases to produce a cumulative body of knowledge about the impact of microeconomic crisis on policymaking. Further studies should extend these tests to other infrastructure sectors to understand the constraints, both technical and political, faced by Latin American leaders in dealing with microeconomic policymaking.

NOTES

1. According to the *Latinobarómetro*, by 2003, only 10–30% of the population of Latin American countries were satisfied with the privatization of services, such as

electricity, water, and telecom (*Latinobarómetro*, 2003). Discontent with privatization increased during 1998–2003 (Panizza & Yañez, 2005).

2. Kahneman and Tversky (1984) use experiments to show that people act differently depending on whether they face gains or losses. In the “domain of gains,” they have a decreasing marginal utility and are risk averse. In the “domain of losses,” they seek values that are less far removed from their reference point (status quo) increasing their risk-acceptance to small losses in the hope to recover from all losses.
3. The salience of an issue and the coherence and intensity of public attitudes toward it affect the influence of public opinion on policymaking because higher visibility of salient issues increases the cost of deviation from median voter preferences for policymakers (Manza, Cook, & Page, 2002, p. 28).
4. Henisz and Zelner (2005) constitute an important exception.
5. In Argentina, rationing due to insufficient supply generated public support for reform in electricity in the early 1990s although the general public did not have specific preferences for the competitive wholesale market that was established (Bastos & Abdala, 1996).
6. The 1959 electricity law had established a Tariff Commission—composed of representatives of the president, the companies, and consumers and perceived as amenable to the latter—to define prices. Instead, the 1982 law was very specific about the use of long-term incremental marginal costs to define rates and established a limit of 10% difference from the wholesale market price to restrict the discretion of the regulator (Spiller & Viana Martorell, 1996, p. 16).
7. The CDEC board was controlled by operators that accounted for at least 2% of the total generation, which were Endesa, Chilgener, Pehuenche, and Colbún, transforming the board into a “large generators’ club” (Mines Ministry’s Supreme Decree 6 of 1985).
8. The SEC was in charge of controlling the application of the law, rules, and technical guidelines; receiving information from the distribution companies to define the profit rate for these companies; and overseeing the application of the regulated prices (Altomonte, 1996, p. 45).
9. Because the CDEC board was constituted of company managers and its decision making was unanimous, it was plagued by conflicts that were difficult to resolve, thus requiring arbitration by the authorities. Yet, the CDEC obligations to provide information to the regulator were not well defined (Rivera, 2000, p. 177).
10. See Rivera (2000, pp. 180–182) and personal interviews with former CNE Executive Secretary Maria Isabel González (Santiago, July 11, 2000) and former CNE president Oscar Larrederetche (Santiago, November 9, 2000).
11. The Executive monitored public opinion closely and used surveys to define its strategy (*La Tercera*, April 23 and 27, 1999).
12. Metallurgic producers complained of losses equal to US\$10 million a day (*La Tercera*, April 8, 1999) whereas the SOFOFA (Society of Industrial Development) blamed on the electricity shortages a reduction of work hours that increased labor costs by US\$ 100 million a month and would delay economic recovery after the Asian crisis (*La Tercera*, November 24, 1998, and April 19, 1999).
13. Although the government had been told on July 1, 1998, by the CDEC of an energy deficit, it granted ENDESA additional water usage assuming the entry of the failed utility into the system. The estimated amount of thermal generation displaced by the used hydroelectrical generation during July and August was approximately 85% of the energy deficit of November 1998. In September, the government ignored a CNE recommendation for rationing and waited for electricity outages to decree rationing (Cámara de Diputados, 1999, p. 122; Díaz *et al.*, 2000). This delay had an effect on prices that reduced the incentives of *gencos* to diminish the deficit (Díaz *et al.*, 2000; Fisher & Galetovic, 2003, p. 124; Rozas, 1999).
14. At the time of privatization, only Chilean investors purchased electricity assets, whose links to the regime made the two main companies important financial contributors to the right-wing parties in the opposition. We thank a reviewer for this comment.
15. The president can accelerate the legislative process by imposing different types of urgency status that limit the time allotted to Congress to debate and vote on a bill. The three categories are “simple urgency,” which establishes a 30-day limit, “high urgency,” which defines a 10-day limit, and “immediate discussion,” which imposes a three-day limit. Moreover, when the bill is in the Conference Committee that resolves differences between the Lower and Upper Houses, the time limits apply both to the committee and to the chambers.
16. Because the President gave the annual state of the union address on May 21st, he had another incentive to accelerate the debate so as to announce the passing of the law during his speech as one of the solutions to the crisis (Frei, 1999b).

17. BCN (1999, pp. 82, 211, 213, 216, 219, 223, 227, 231, 242–243, 255–258).
18. Shortly after the first outage, the front page of the official newspaper was “Government accuses Endesa.” (*La Nación*, November 15, 1998). The Executive Secretary of the CNE, María Isabel González, publicly stated that the firms had privileged their private interests over the public interest, hiding information (*El Mercurio*, November 15, 1998). The conflict with the companies provoked the politicization of the node price definition. Although a mathematical model is used to define this price, the process was marred by disputes during the crisis as the Executive Secretary of the CNE accused its president to accept pressures from the companies to avoid a price reduction. (*La Hora*, March 8, 1999; *La Segunda*, March 8, 1999, *La Tercera*, March 9, 1999). The dispute ended with the intervention of the Interior Minister on March 9, 1999, who promised that prices would not increase (*La Segunda*, March 9, 1999).
19. Personal interview with former Communication Director of the Presidency Christian Toloza, Santiago, August 10, 2004.
20. Personal interview with the former Communication Director for President Frei, Cristian Tolosa (Santiago, August 10, 2004). *La Tercera*, April 23rd and 27th also reports that the government used surveys to define its strategy.
21. See BCN, 1999, p. 40, 90, 208, 236. Law 19,613 reformed Law 18,410 and DFL1. The articles refer articles in Law 18,410 and DFL 1.
22. For instance, in the Mining Committee of the Lower House, opposition legislators proposed requiring a technically supported argument from SEC in order to establish reductions of nonnecessary energy consumption. In the Upper House Committee, opposition senators proposed eliminating the SEC’s ability to establish norms for cases in which the law only provided general instructions, claiming that it would be unconstitutional to allow the SEC to exercise such power. There was also a partisan division regarding whether the SEC should refund to the electricity firms the costs of auditing if the report was favorable to the electricity firm. The partisan division was stronger in the Lower House, whereas in the Upper House senators of both coalitions approved the refund during the Committee discussion (BCN, 1999, p. 34, 132).
23. Reforms to compensation and sanctions could not be implemented as companies are still disputing their payment in the judiciary six years later (personal communication with Alvaro Medina, Director of Communication, SEC, May 2, 2005).
24. This exception was established at the end of Pinochet’s rule as Chile experienced a previous drought that was worse than the baseline year in 1989–90 and thus prevented companies from paying compensation then. Basañez, Saavedra, and Soto, (1999) criticized the 1999 change in the law since it imposed consumer compensations in any event by claiming that in a country subject to major earthquakes, the possibility of energy failures resulting from *force majeure* cannot be discounted without generating the basis for future disputes. Bernstein (1999) issued a similar critique.
25. Even rationing—which favored residential users at the expense of large users—reduces large users’ incentives to contract with prudent companies, and firms’ incentives to allocate the available energy at higher values to reduce shortages (Díaz *et al.*, 2000). Technical criticisms to the imposition of consumer compensations at any event are reported in the previous note.
26. This reform was also introduced to obtain the approval of *Concertación* legislators in the Lower House for the bill, which had been dormant for two months in a committee. The Minister of the Presidency, Juan Villarzá, signed a protocol with *Concertación* deputies promising to sponsor amendments to restore the bill to its original content after legislative modifications and to leave the state in control of 35% of the two largest water utilities (EMOS and ESVAL) in order to retain veto power over their functioning (Aninat *et al.*, 2004, p. 27).

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