

POLICY RESEARCH WORKING PAPER

5747

Governance in State-Owned Enterprises Revisited

The Cases of Water and Electricity
in Latin America and the Caribbean

Luis Alberto Andrés

José Luis Guasch

Sebastián López Azumendi

The World Bank
Latin American and the Caribbean Region
Sustainable Development Unit
August 2011



Abstract

This paper studies the governance structure of state-owned enterprises in the water and electricity sectors of Latin America and the Caribbean. Through a unique dataset, the paper compares 44 leading state companies of the region based on an aggregate measure of corporate governance and six salient aspects of their design: board, chief executive officer, performance orientation, management, legal framework, and transparency/disclosure. The results indicate the need for improvement in areas such as the selection and appointment of directors to the board and the performance-orientation of the enterprises. The paper also highlights the importance of discussing the management of state-owned enterprises

in the wider context of public sector governance, with particular focus on accountability. Moreover, it recognizes the role of accountability as central in the management of state-owned enterprises, recommending a better understanding of regulation and performance management. The paper finds a positive correlation between corporate governance and the utilities' performance. Among the different aspects of corporate governance, performance orientation and professional management seem to be the highest contributors to well-performing state-owned enterprises. State-owned enterprises in the electricity sector show higher governance levels than those in the water sector.

This paper is a product of the Sustainable Development Unit, Latin American and the Caribbean Region. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted via email at landres@worldbank.org, jguasch@worldbank.org, and slopezazumendi@worldbank.org.

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Governance in State-Owned Enterprises Revisited: The Cases of Water and Electricity in Latin America and the Caribbean¹

Luis Alberto Andrés,² José Luis Guasch,³ and Sebastián López Azumendi⁴

JEL Codes: D02, D22, K23, L32

Keywords: Corporate Governance, State Owned Enterprises, Utilities, Performance, Electricity, Water.

¹ The authors would like to acknowledge and thank the following colleagues for their inputs and suggestion: Daniel Benitez, Tito Cordella, Augusto de la Torre, Antonio Estache, Jordan Schwarts, Tomás Serebrisky, Máximo Torero, and Maria Vagliasindi. The findings, interpretations, and conclusions expressed in this article are entirely those of the authors, and do not necessary reflect the views of the board of executive directors of the World Bank or the governments they represent. The authors are also solely responsible or any incomplete or inaccurate data.

² Senior Economist, Sustainable Development Department, South Asia Region, The World Bank.

³ Consultant, Sustainable Development Department, Latin America and the Caribe Region, The World Bank.

⁴ Consultant, Sustainable Development Department, Latin America and the Caribe Region, The World Bank.

The capacity to recognize government corporations and their governance as a subject of research in its own right liberates us from the comparative static analysis of the past, and opens up a dynamic new field for the future. (Whincop 2005)

1. INTRODUCTION

The governance of state-owned enterprises (SOEs) in Latin America has recaptured the interest of the development community. After the wave of privatizations that characterized the end of the 1980s and the 1990s, the still significant levels of public provision in sectors such as water and nationalizations in others have caused both academics and development organizations to seek a deeper understanding of the performance of public utilities in infrastructure. From a “one model fits all approach”, government and international donors adopted a more pragmatic view of the provision of infrastructure services. The challenges of infrastructure investment, together with the need for innovative management, also provided space for the discussion of new themes such as public-private partnerships (PPPs).

Current research on the subject has focused on the concept of Corporate Governance in State-owned Enterprises. Led by the work of the Organization for Economic Cooperation and Development (OECD) and supported by the concepts and tools of New Public Management, this approach conceives state enterprises as corporations driven by incentives that reward efficiency and transparency. Although adapted to the public sector, the notion of corporate governance is intended to reflect as close as possible the incentives that exist in a private enterprise. In the particular case of SOEs, corporate governance is used to refer to the organization of decision-making in a public corporation.

The paper focuses on the Corporate Governance (CG) of SOEs in the water and electricity distribution sectors of Latin American and the Caribbean (LAC). It takes into account public companies with full state ownership or partial state ownership of at least 51 percent of total shares.

While the ultimate goal of this paper is to help SOEs improve their sector performance through effective CG reform, our corporate governance measures are intended to develop benchmarks that allow for comparisons among companies in LAC. Corporate governance benchmarking is conducted through different governance measures. Six salient aspects of the institutional design of state-owned enterprises are assessed: Board composition, performance, and evaluation; CEO performance and evaluation; companies’ performance orientation; the quality of companies’ management; the legal and organizational framework; and mechanisms aimed at guaranteeing financial and non-financial transparency.

Particular importance is given to the impact of corporate governance on companies’ performance. This relationship is tested using a unique dataset containing information of 45 leading state corporations. Results indicate the need for improvement in areas such as the selection and appointment of directors to the Board and the performance-orientation of the enterprises.

The paper is divided in six main sections. Section 2 presents a literature review of the debates surrounding the characteristics, structure and governance of SOEs. Section 3 contains the methodology of the paper; it describes the theoretical framework, the levels of analysis, and the indexes used to measure SOE governance. Section 4 provides a description of the main characteristics and performance patterns of SOEs in the water and electricity sectors of LAC. Section 5 benchmarks SOEs according to the governance measures specified above. Section 6

assesses the impact of corporate governance on performance. Finally, section 7 presents the conclusions of the paper.

2. LITERATURE REVIEW

The existing literature addresses SOEs from two main approaches. The first approach emphasizes the improvement of the governance of SOEs as a step prior to private sector participation. Government corporations are assimilated to a private enterprise and their governance analyzed under the umbrella of corporate financing and profit maximization. This approach assumes that higher levels of autonomy in the management of funds, the application of corporate law, and eventually, the listing of SOEs will align internal incentives and, consequently, improve performance leading to private sector participation. This is a recipe that has been recommended to both competitive (telecommunications) and non-competitive sectors (network industries). Critics of this view emphasize that this approach only focuses on one of several ways of organizing state corporations. The second approach adopts a more comprehensive, less dogmatic, view of the governance of SOEs. First, it considers the improvement of governance of SOEs as an end in itself and not as a strategy to privatization. Second, it presents SOEs with different strategies to improve performance, including but not limited to private sector participation methods.

From Whincop's (2005) perspective government corporations face three main problems. The first problem is related to the alignment of the interests of the government corporations' managers with those of its ultimate owners, the citizens (agency costs of management). The constituency to whom the government corporations are ultimately accountable –the people– stands in a dual relation to the government corporation. On the one hand, they are the government corporations' residual claimants, as shareholders in a business corporation. On the other hand, they are also frequently the principal recipients of the goods and services the government corporation provides. This dualistic relation between the government corporation and the public makes it difficult to concretize the meaning of acting in the best interests of the public. The second problem is associated with the alignment of the interests of that wielding delegated governance power over managers with those of its ultimate owners (agency costs of governance). As actors in the political process, questions arise regarding the extent to which these persons are inclined to use those government powers for political advantage. The third issue is the reduction of social costs associated with anti-competitive behavior by the government corporation (anti-competitive behavior costs).

Whincop explores how the governance of government corporations can be evaluated in terms of three objectives: reduction of management costs, anti-competitive behavior costs, and costs of governance. He conducts that assessment from a "constituency" perspective- the major and active players whose interests may be affected by the governance of a government corporation and their relation to the ultimate principal, i.e. the public at large. Principal players are the managers, the empowered political agents, and a group of active stakeholders including customers and employees.

Vagliasindi (2008; 2009) develops a detailed review of substantial research related to theoretical models of Board effectiveness and ownerships structures. Although applied to the private sector, the literature stresses the importance of independent directors. In the case of SOEs, even more than in private enterprises, the appointment of directors with technical expertise and a reasonable level of independence becomes significantly relevant. Vagliasindi also emphasizes the

importance of external governance for the management of SOEs such as the role of the government agency in charge of ownership decisions and the relevance of regulation.

Schwartz (2006) sheds light onto the discussions about the organizational model in state water utilities. He distinguishes two main organizational approaches, the Bureaucratic Model and the New Public Management Mode', and applies them to public water utilities in Mexico. He defines the Bureaucratic Model as one based on the preeminence of the law and rules, composed of civil servants with stability and civil service careers in public administration, and organized under the principles of hierarchy and levels. The New Public Management framework proposes higher levels of decentralization of and autonomy to government entities, the use of performance-based instruments such as performance-based payments, and accountability focused on results. The author challenges conventional wisdom about the effectiveness of New Public Management institutions to state enterprises, finding that well performing public utilities tend to display a stronger adherence to the Weberian ideal-type than poorly functioning public service providers. He concludes by asserting that rather than opposite strategies, they are better viewed as complementary. Whereas the Bureaucratic model focuses on reducing patronage and depoliticizing the management of the utility, the New Public Management model emphasizes the levels of service that must be delivered by the utility (New Public Management model).

Whether we consider corporate governance as a means to privatization or as an end in itself, both approaches lack empirical evidence about the impact of governance on performance. For instance, there is no assessment about the contributions of corporatization to access to finance or productivity, or the role of shares in non-profit oriented enterprises. Moreover, the emergence of regulation, as the institutional response to the efficiency of utilities, has not been discussed and analyzed in the context of state providers. This paper attempts to fill some of those gaps.

3. METHODOLOGY/Framework OF THE ANALYSIS

We study the governance of SOEs in infrastructure through seven measures. Selected measures attempt to describe the main variables of the governance dynamics that characterize a state corporation. For that purpose, we created an aggregate measure of corporate governance and six salient aspects referred to specific corporate governance themes. The five themes address the following CG aspects: the legal framework of the corporation, the composition and quality of the Board and CEO, the quality of the company's bureaucracy, the performance orientation of the enterprise, and the mechanisms to guarantee the transparency of the financial and non-financial information.

Information was collected through surveys sent to 110 different utilities of the region in both the electricity and water sectors. Final respondents were 44 state-owned enterprises of the Latin American and the Caribbean region. We included both public companies with full state ownership and companies where despite there is private investment state ownership is at least 51 percent of total shares (only a few in this category). Our aggregate measure includes a sixth variable related to the listing of the company in the stock exchange.

The methodology proposed to benchmark SOEs of the LAC region is based on various criteria. For this last purpose, the paper compares government enterprises based on different tiers or thresholds. Utilities were grouped based on their corporate governance status in different indicators. Utilities within Tier 1 (T1) are those SOEs that have "desirable" conditions for corporate governance (their responses scored highest in the survey's questions). Utilities within

Tier 2 (T2) are those SOEs that meet “minimum” corporate governance conditions. Utilities within Tier 3 (T3) are those SOEs that do not meet the “minimum” conditions to implement our benchmark model of corporate governance.

Answers were valued between 0 (worst) and 1 (best). In selecting the questions and giving values we had in mind the benchmark of a public enterprise that is corporatized and subject to same conditions, in terms of access to finance and auditing, than any other private enterprise. We adjusted the benchmark to sector specificities such as the mechanisms to appoint the Board of Directors, economic regulation, and performance-based orientation.

Different from other approaches to the governance of SOEs, we also included the study of the selection, appointment, salary, and educational levels of the staff. Previous approaches have only emphasized the role of the Board and its relationship with the shareholder/s. In the infrastructure sector, the role of the staff of a state enterprise is vital to good management. Because most of these enterprises are not profit-oriented, not allowing to focus on revenues as parameters of good performance, and also because a good bureaucracy is a good filter to political intervention, we believe that a an index that reflects the professionalism (given by educational levels, hiring criteria, and rewards) of the staff might give us a good proxy of the performance of the enterprise.

Last but not least, our corporate governance measures are neither intended nor focused on governance effectiveness. The sole purpose of the CG measures is to develop benchmarks that allow us to compare companies in LAC and identify trends and projections.

The following table describes the different components of your framework of analysis and the criteria for giving values to each indicator.

	<i>Ownership/ Legal framework</i>	<i>Board/CEO</i>	<i>Management / Staff</i>	<i>Transparency Disclosure</i>	<i>Performance Orientation</i>
COMPONENTS	Ownership structure, tax regime, corporatization, regulatory bodies and functions, restructuring, procurement, public listing.	Appointment’s process (authority, criteria), origin and background of directors, deliberative or executive roles, salary levels, scope of responsibilities, assessment of performance.	Educational levels, training, criteria to hire the company’s employees, mechanism to reward employees, salary levels.	Website’s contents, participation of civil society in decision-making, annual performance report, auditing of company’s accounting, financial disclosure standards, involvement of consumers and civil society representatives in the company’s decision-making, criteria to appoint the company’s top authorities, criteria and mechanisms to hire the company’s employees.	Assessment of the performance of the company’s and its decision-making authorities, criteria, tools and mechanisms, evaluation authorities, systems to reward employees.
BENCHMARK	Focus on a company that has a corporate structure, subject to the same conditions to the private sector, and the possibility of accessing private and public financing.	Emphasis on a Board of Directors and CEO appointed under meritocratic criteria, with a reasonable level of independence, and whose performance is assessed regularly.	Our benchmark is a company that hires its employees through an external competition, that rewards employees’ performance, and whose salary levels are close to private sector standards.	We emphasize a decision-making process where civil society has a say in the company’s decisions (accountability effect) and with a strong focus towards the publication of institutional and performance information. We also prioritize the involvement of private auditors and the publication of financial information through best international practices. We also give importance to the ways the company hire its employees (open process).	Model of an SOE with a focus on performance-based management. Our benchmark compensates the lack of incentives provided by the profitability of a private company with a framework where the performance of public companies is properly assessed.

4. CHARACTERISTICS OF SOEs

COMPONENT 1: OWNERSHIP/LEGAL FRAMEWORK

The majority of the companies in our sample set have been corporatized, adopting different corporate modalities. The most common is to subject SOEs to the same legal framework as a limited liability enterprise, what in Latin American countries is called *Sociedades Anónimas*, Capital Variable, etc. SABESP in Brazil is the only company in our sample that is publicly listed, and, hence, subject to more quality controls by authorities and investors.

Corporatized enterprises are also subject to corporate law, with an institutional design closer to a private company than a non-incorporated enterprise. Around 70 percent of SOEs can go bankrupt in case of insolvency, have a Board of Directors, and ownership is organized under a shares' structure. Despite the high number of companies organized under shares, the relevance of this approach is not sufficiently clear. It is undoubtedly critical in SOEs with private investors such as SABESP and Aguas de Saltillo (Mexico). However, in the cases of companies fully owned by the State or with institutional shareholders such as unions and other government units, its usefulness is more controversial and questionable. The lack of pursuing profits contradicts a share's structure. The purpose of shares is precisely to trade commercial rights in the market in order to increase their value and consequently a company's income. In a non-profit oriented enterprise, a share's structure is more representative of a division of power within the company than a tool to enhance profitability. The pursuit of benefits is only required in 35 percent of the cases. Moreover, with the exception of one company (SABESP), the rest of the companies are not listed in stock markets.

If a system of shares is only thought as a mechanism to distribute power among shareholders, without any implications in terms of the pursuit of profits, then decision-making in SOEs would need to be revisited. Other approaches such as voting mechanisms and the inclusion of veto powers from independent directors could be considered. Nevertheless, more analysis is recommended to fully understand the dynamics and political economy of decision-making in state-owned enterprises.

The landscape of companies with shares is diverse. There are cases such as Aguas de Rio Negro S.A. in Argentina where even though companies are organized as private enterprises, shares have not been implemented. Others have distributed profits but at very low levels. In some cases, shares have been used to reimburse users for the money spent in the extension of the network (Peru). There are also companies that have achieved significant profits despite not being integrated by shares. This is the case of enterprises such as Empresas Públicas de Medellin in Colombia which transferred in 2010 around two hundred thousand dollars to the Municipality of Medellin, the company's shareholder.

Ownership structure: Almost half of our sample of SOEs has some sort of private sector participation. Nevertheless, the percentages, with some exceptions, are very small. Exceptions are the cases of SABESP in Sao Paulo (Brazil) and Aguas de Saltillo S.A. (Mexico), where private investors account for 49.7 and 49 percent, respectively, of the shares. In the case of SABESP, 24.6 percent of these shares are traded in the national stock market (Sao Paulo Stock Exchange, or BOVESPA) and 25.1 percent in the New York Stock Exchange. In the case of Aguas de Saltillo, 49 percent of the shares are owned by Interagbar de México S.A. de C.V. (Aguas de Barcelona). Private investors not only own the company but they are also responsible for the operation of the service (there is a concession agreement).

The rest of the companies have different arrangements to allow private sector participation. Shares are owned by employees, trade associations, citizens, and users. With different degrees, they do not account for more than 10 percent of total shares. SOEs in Argentina (AySA, ABSA, ARSA, and SATSA) show one of the largest percentages of this type of private investors - all of whom are employees of the enterprise represented by their unions. Trade associations complete the picture of small investors in SOEs in LAC. This is the case of associations such as the National Association of Coffee Producers of Colombia (Federación Nacional de Cafeteros) in the enterprises Centrales Eléctricas Norte de Santander S.A. and the Association of Manufacturers of Pichincha (Camara de Industriales de Pichincha) in the enterprise Eléctrica de Quito S.A.

Authorities that exercise power over the company: Ownership rights are exercised in the majority of corporatized companies by the sector or line minister. Other authorities involve a common minister such as the Minister of Finance and auditing bodies. In those cases of SOEs that are subsidiaries of larger state enterprises, ownership rights are exercised by its holding company.

Regulatory role: Economic regulation of SOEs is a critical aspect to sustainable management of SOEs particularly in its connection to the setting of tariffs and the quality standards of service provision. This is perhaps one of the most challenging aspects of the provision of services by state-owned enterprises. Critical aspects of economic and technical management are at risk of misuse by politicians. Only a very specific division of roles between the State as policy formulator, provider, and regulator can provide a framework to enforce economic sustainability and quality of service from SOEs.

In our survey, we asked state enterprises about the regulator with the final decision making power in the sector. We also asked about regulatory authorities in specific aspects such as tariffs, quality standards, and service expansion. Our data indicate a high percentage (72 percent) of state enterprises regulated by a regulatory agency. The remaining 28 percent are regulated by the line ministry or through combined efforts of a regulatory agency and the line ministry.

Things change when we get into the details of regulation. Focusing on four main aspects of regulation such as tariffs, expansion, quality of service, and technical standards, we found interesting results. The consideration of the four regulatory issues combined indicates that both the government and the regulatory agency have the same scope in regulating state enterprises. According to our data, in 29 percent of the cases a sole regulator is the regulatory authority, and in 28 percent of the cases is the government the only authority. Self-regulation, or the regulation of the companies' policies by the enterprise itself, represents 22 percent of the cases in the region. Finally, in 21 percent of the cases, regulation is exercised by a combination of the regulatory agency, the government, the company and/or other authority.

The consideration of each aspect also brings interesting results. We found that the involvement of the government is more significant when it comes to critical issues such as tariff levels and expansion of service. However, government involvement is less significant when it is related to less controversial service related issues such as technical standards and service quality. The distribution of competencies between regulatory agencies and the line ministry shows that critical decisions are taken by the latter.

Tax regime: Another component included in our Legal Framework Index is the tax regime. Ideally, we would expect SOEs to be subject to the same tax obligation as private enterprises which would in turn level the playing field of SOEs vis-à-vis other private enterprises, allowing for greater efficiency.

Our data indicate that more than half of the SOEs in our sample have some exemption or discount of their tax obligations. Only 43 percent of our sample declared not having any type of fiscal privilege.

COMPONENT 2: BOARD AND CEO

We focus on the composition, qualifications, and performance evaluations of the Board of Directors and CEO of SOEs. We prioritize a Board of Directors where political discretion is low, where members of the Board are selected based on pre-defined criteria (particularly related to merits and experience), and whose performance is assessed based on different governance arrangements. We also enquire SOEs about the salary levels of their directors.

Considering the space for political collusion and capture of a public sector enterprise, we consider the formalization of institutions to appoint and evaluate directors to be of critical importance. The more the emphasis on transparency and accountability of the decision-making authorities of a SOE, the higher the possibilities of improving performance.

Requirements for selection: Our data indicate that there is a prevalence of political authorities in the appointment of the Board of Directors. This is not surprising and is consistent with the fact that these are state enterprises whose main shareholder or owner is the government. The data also indicate that the selection of Directors from the enterprise's management, its employees, or even from private independent experts is very low. In more than half of the cases, directors of the Board come from the public sector. Requirements for selection are not a common practice in our sample of SOEs. In only 36 percent of the cases, the law establishes the need to select Directors upon certain criteria. Among those which have an established procedure, sector experience and a university degree seem to be the most common requirements. Only in 2 percent of the cases, is political independence a pre-condition to be eligible as a Director to the Board.

Very few companies have developed specific criteria, beyond legal impediments, to select Directors to the Board. FONFAE, in Peru, developed a Guideline that regulates the appointment, payments, and obligations of directors to state companies. This directive asserts that only directors with a university degree and with 5 years of professional experience can be appointed to the Board. They also need to comply with ethical and legal requirements. They are not considered employees of the enterprise and are hired under a professional services contract (*Locación de Servicios*). The regulation also establishes their obligations and responsibilities.

Empresas Públicas de Medellín, in Colombia, has developed a Corporate Governance Code in which it addresses, among other issues, the criteria to appoint directors to the Board. In addition to a university degree and related professional experience, the directive requires that five out of the nine members of the Board be independent. EPM, also Columbia, is one of the few state enterprises that require independence as a criterion for appointment.

Salary levels: Salary levels have little to do with private sector standards. Only 8 percent of the SOEs match their Directors' salary levels to the private sector. The majority of Directors earn salaries that are similar to those received by public servants with similar responsibilities.⁵ A large percentage of directors are paid through stipends and in 15 percent of the cases being a director is considered an honorific position.

⁵ We do not estimate the value of the stipends that directors receive. The question was only related to salary levels, although some companies stated that the stipends that they pay to directors reflect, or not, market standards.

Big companies pay higher salaries than small companies. Forty percent of the big companies pay market level salaries or salaries that are lower than the private sector but higher than a similar position in the public administration. Thirty percent of small companies pay similar salaries than the public sector. Moreover, smaller companies seem to use stipends more frequently than big companies.

Because of the high number of stipends in the electricity sector, we cannot determine which sector pays higher salaries. Electricity companies use stipends more often than water companies (32 percent in the case of electricity companies and 17 percent in the case of water companies), and because we do not quantify the value of the stipend we cannot determine whether the 32 percent of companies that use this mechanism pay higher remunerations than companies in the water sector.

Responsibilities: Whereas the Board is more influential in issues such as financing and debt, the management of these enterprises seems to have a critical role in hiring and determining levels of production. Both Board and managers share similar levels of influence in aspects such as the allocation of State subsidies and the determination of wages.

Evaluation of performance: One of the most critical issues in the management of SOEs is the way their performance is assessed. In a private enterprise, the generation of revenues is the main criteria to either reward or dismiss directors. Hence, their organizational structure and strategies reflect this orientation. In some state enterprises, the dispersion and sometimes opposing interests of stakeholders prevent the formulation of consistent strategies and policies. It is because the majority does not seek to maximize profits that the identification of objectives becomes confusing.

We attempted to capture the ways directors are evaluated. Because of the confusion and dispersion of objectives, we assume that an institutional arrangement through which the Board identifies goals and strategies and by which directors are accountable for, would contribute to efficiency. We asked SOEs about the ways their directors are evaluated, if any. We focused on the methodologies used by SOEs to set objectives, the instruments through which performance is assessed, and the consequences for not reaching agreed targets. Although a significant number of SOEs responded positively saying that directors were evaluated, when it came to sharing the details of evaluation mechanisms responses were not sufficiently clear, preventing the establishment of definite conclusions or correlations about performance evaluation.

When asked about the methodology/criteria to carry out these assessments, only 17 percent of the SOEs responded by the identification of a specific criteria. The majority (89 percent) expressed that although Directors are indeed assessed, there is no specific criteria for that purpose, confirming the existence of ad-hoc, more informal, mechanisms of evaluation. Moreover, when asked about the instruments used to undertake the evaluation, very few identified a particular mechanism against which performance is evaluated. Similar to private enterprises, Directors are assessed at the end of the fiscal year by the SOE shareholders.

COMPONENT 3: MANAGEMENT/STAFF

This governance measure captures the composition and characteristics of the enterprise's staff by levels of education, type of training, legal status, salary and benefit levels, hiring, and incentives. Employees are a central part of SOEs of the infrastructure sector. They share a common vision regarding their role in the enterprise, contributing to the improvement of the enterprise's

performance. Moreover, they may also become a filter to political decisions as a professional and well organized bureaucracy will oppose to measures that hinder their career prospects.

The bulk of employees in SOEs are those dedicated to operational work. Thirty-seven percent are skilled workers and 31 percent are non-skilled workers. Twenty percent are non-operational, administrative workers. A small percentage, around 15 percent of employees in SOEs, has a university degree. The average age in our sample of SOEs is 44 years old.

Educational levels

Board-Managers: The SOEs in our sample show diverse educational backgrounds both in the members of the Board and the rest of the staff. Members of the Board show reasonable academic backgrounds. In 70 percent of cases, all the members of the Board have a university degree and in 30 percent of the cases only some members have a university degree. When asked about graduate studies, 15 percent of the companies said that all the members of the Board had postgraduate degrees, 55 percent of the SOEs said that some of the members of the Board had a graduate degree. In 30 percent of the cases none of the members of the Board had a graduate degree.

Educational levels are higher at the CEO and manager levels. In 56 percent of the cases, CEOs had postgraduate degrees, in 38 percent of the cases CEOs only had an undergraduate degree, and in only 6 percent of the cases CEOs did not have a university degree. When it comes to managers of the enterprise, in 78 percent of the cases all managers had a university degree and 22 percent said that some of their managers had a university degree. With respect to the graduate background of managers, 12 percent of the companies said that all their managers had a university degree and that in 58 percent of the cases some of the managers had a university degree. In 30 percent of the cases, none of the managers of the companies had graduate degrees.

Professionals: We also asked SOEs about the educational levels of those employees with a university degree, called “*profesionales*” in Latin America. Academic formation is lower. Only 3 percent of the respondents said that all their professionals had graduate degrees and that in 60 percent some of their professionals had graduate degrees. In 37 percent of the cases, none of the professionals had graduate degrees.

Lower level staff: We asked skilled and non-operational workers about their university degrees. We define skilled workers as those employees (permanent and non-permanent) who, without a university degree, perform tasks that require a special knowledge and practice. We only included positions that are operational. Non-operational workers are employees (permanent and non-permanent) that do not have a university degree and perform non-operational tasks (administrative work) such as secretaries, assistants, etc.

In the case of skilled workers, only 10 percent of the SOEs said that all their qualified workers had a university degree. In 33 percent of the cases, none of them had a university degree, and the remaining 57 percent said that some of their skilled workers had an undergraduate degree. Non-operational workers show lower educational levels. In 46 percent of the cases, none of the operational workers had obtained a university degree and in only 8 percent of the cases all the non-operational employees had a university degree.

Labor regime: A common assumption regarding the management of SOEs is the rigidity of labor schemes that prevent the restructuring of the labor force. According to our data, in 62 percent of the cases, employees are hired under private law and in the remaining 32 percent they are subject

to civil service rules. The majority of the labor force is hired under a permanent basis (those that are hired under a special regime such as those under Labor Agreement or “*Convenio Colectivo de Trabajo*”). According to our data, on average, 84 percent of the employees were hired under a regime that gives different levels of stability.

Selection procedures: A crucial aspect related to the proficiency of the human resources of state companies is the mechanism to select employees. Political discretion and the undue influence of trade unions were frequently mentioned in the past as drivers of overstaffing and low capacity. In order to identify mechanisms of selection, we grouped staff in the following categories: managers, professionals, skilled workers, unskilled workers, and non-operational workers. The majority of the responses indicated the use of external competition as the primary way of selecting personnel. This is more evident when it comes to more qualified positions up to the managerial level. Nevertheless, it is interesting to see that the rest of the options, around half after counting for external selection, indicated more discretionary, less transparent ways of hiring staff.

In the case of unskilled workers, 33 percent of the staff is selected discretionally. The rest of the mechanisms include internal competition (7 percent) and other combinations of internal competition with external selection (24 percent). A similar situation can be seen in the case of non-operational workers where 25 percent of the workers are selected both discretionally and by sector unions. In the case of managers, 50 percent of companies indicated that their managers were selected discretionally, 34 percent through external competition, and 15 percent through an internal competitive process.

Performance evaluation: In addition to open and meritocratic-based selection processes, SOE can benefit from a system of incentives that rewards good performance. We asked SOEs about the criteria to reward performance and the ways in which good performance is rewarded. Criteria includes years in the company, performance, and the discretionary determination of rewards for employees. Options for rewards include promotion, salary increase, and bonuses. The majority of SOEs reward their staff through a combination of two main criteria: years in the company and performance (30 percent). The second set of companies uses either years in the company (23 percent) or performance (13 percent) as their exclusive criteria to reward employees. A significant number of companies (21 percent) use only discretionality or a combination of discretionality and performance/years in the company to reward their employees. Very few companies (i.e. the Companhia Pernambucana de Saneamiento in Brazil) pay employees a performance-based bonus.

Incentives payments: We also asked SOEs about the existence of performance-based incentive payments. Incentive payments in the public sector have been considered a way of motivating the civil service and of increasing efficiency and effectiveness. Although there is no empirical evidence on the consequences of this type of reforms in the public administration, its use in state enterprises still receives both voices of doubt and support. In our sample of SOEs, only 20 percent of companies have some type of performance-based payment. Companies such as EDENORTE (Dominican Republic), the Comisión Federal de Electricidad (Mexico), Aguas de Saltillo S.A. (Mexico), the Companhia de Agua e Esgoto do Ceara (Brazil), and Grupo CEEE (Brazil), manifested having different arrangements to reward good performance.

Salary levels: The salary levels of employees are, on average, higher than the income levels of the members of the Board. Board members that receive salary levels similar to private sector or higher than those received in the public administration constitute 30 percent of our sample. Board members with salaries similar to the public sector are 34 percent of the companies. Among employees, 84 percent receive salaries that are either similar to private sector levels or in between

the public and the private sectors, with only 16 percent that receive public sector salaries. Salary benefits follow the same trend. Ninety percent of SOEs pay their employees benefits that are similar (26 percent) or higher (2 percent) than the private sector or between private and public sector standards (60 percent).

COMPONENT 4: TRANSPARENCY/DISCLOSURE

The transparency index measures the existence of mechanisms that allow for a better publication of the company's financial and non-financial information, the involvement of civil society in decision-making, the disclosure of financial information, and the independent auditing of SOEs' accounts.

Quality and content of websites: One of our measures of transparency is the quality of each company's websites. The majority of the companies, with one exception, have a website. When it comes to the contents of companies' websites, four main aspects were emphasized: annual report, financial accounts, corporate structure (chart), and mechanisms to receive consumers' claims and suggestions. On the contrary, little importance is given to issues such as performance statistics (coverage, quality of service, costs, etc), vacancies, the names and backgrounds of Directors to the Board, procurement processes (stages, prices, etc), and educational content.

ElectroSureste in Peru, SABESP in Brazil, and EPM in Colombia have developed well designed websites with useful information for consumers, investors, and the general public. ElectroSureste offers an e-procurement system which allows participants to read biddings guidelines, deadlines, and results. It also publishes the projected time, responsible authorities, and purpose of the different users' claims. It also provides consumers with a virtual office to attend their questions and concerns.

Consumers' involvement: The second component of this section addresses the involvement of consumers and the society in the formulation of the companies' policies. Civil society participation, through different ways and degrees, can be an important factor to reduce political discretion in the management of the company. In 90 percent of the cases participation is not mandatory. In other words, the company is not obliged to request the views of users or other stakeholders on different aspects related to the delivery of services. Both mandatory and non-mandatory mechanisms include different consultation processes on issues such as tariff increases and infrastructure works (whose value is higher than a certain threshold). Some SOEs such as Luz y Fuerza del Centro in Mexico invite NGOs such as Mexican Transparency (Transparencia Mexicana) and Trade Associations to witness the implementation of some of their projects.

Instruments of accountability: An important instrument of accountability in SOEs is the annual report which describes the company's achievements after the identification of different outcomes. In our sample of SOEs, the majority of the enterprises publish an annual report of their performance. The question does not go into the details of its components and accuracy, but a closer look at some of them allows seeing large differences -from complete and detailed reports to the simple enumeration of works developed during the fiscal year.

Auditing of financial accounts: A critical aspect of transparency in SOEs is the auditing of their financial accounts. Although traditionally subject to public sector scrutiny, a significant number of SOEs are also audited by private auditors. In our sample of SOEs, the majority of the enterprises are audited by both government audit agencies and private auditors. Only 5 percent of SOEs are audited exclusively by the government and 30 percent are audited only by private auditors. Forty percent use international accounting standards to report financial information.

The majority of SOEs also publish their audited accounts. Eighty percent of the companies that publish their audited accounts use their website and other means such as newspapers and other printed publications. Only 10 companies out of our total sample do not publish their audited accounts.

Composition of the Board: Only 7 percent of the Boards have a member withdrawn from these sectors. Moreover, in a very small percentage (15 percent) of the cases, Board members are either appointed through the intervention of the Parliament or by the private sector (i.e. professional and experts).

Mechanisms to select the company's staff: We also considered the selection and appointment of the staff of the enterprise. Selection mechanisms show three main approaches: i) external competition; ii) internal selection process; and iii) discretionary appointment. External competition is more frequent in the selection of skilled workers and less common in managers, unskilled labor, and non-operational workers.

COMPONENT 5: PERFORMANCE ORIENTATION

This component addresses the existence of mechanisms to evaluate the performance of SOEs. We intend to identify those arrangements that allow for a performance-based management of the enterprise. In other words, a management that is oriented towards the fulfillment, and achievement, of objectives and goals. We believe this is one, among many, of the ways of increasing state companies' accountability, particularly because of its orientation towards results. A performance oriented management, if properly implemented, would facilitate the identification of objectives and, consequently the efficiency of the company. This is particularly the case in SOEs, where incentives for performance are difficult to create.

We asked companies about mechanisms to evaluate: i) the performance of the enterprise; ii) the performance of the members of the Board; iii) the performance of the CEO; and iv) the performance of the rest of the management. The Performance Index reflects the mechanisms that exist at these four levels. We structure our analysis of performance orientation in SOEs through three dimensions. The first dimension is related to the process of setting objectives. The second dimension is related to the instruments used to set objectives and its enforcement. The third dimension is related to the authority that conducts these assessments.

Objective setting: The answers from the SOEs were not sufficiently clear about the ways performance objectives are established. The majority of responses focused on the instruments through which evaluation takes place. A few, though, were explicit about targets and the process of identification and establishment.

State companies in the Dominican Republic are under the authority of the DR Corporation of Electricity Companies, a holding responsible for the ownership of public companies in the electricity sector. ELECTROSUR, one of DR state corporations, agrees on different objectives depending on the government unit. For instance, it discusses objectives related to coverage and quality of service with the government, efficiency and revenues issues with the holding company, and within the company issues related to work-related accidents, environment protection, etc.

Colombia presents a different approach to objectives' setting. The control agency (Superintendencia de Servicios Públicos Domiciliarios) requires utilities to prepare different plans (finance, strategic, action) based on pre-selected criteria and indicators. The evaluation of

financial and non-financial performance of SOEs takes place through an independent audit by a private firm. The assessment focuses on two aspects: corporate and social. The first evaluation is related to financial indicators. The second is related to administrative and technical parameters, and also to quality standards. The agency also classifies utilities based on their risks. This is for instance the mechanism applied to Centrales Eléctricas del Norte de Santander in Colombia.

Another set of companies coordinate policy goals and objectives through Performance Agreements. Some companies in Paraguay and Brazil sign a Performance Contract with government authorities through which they set objective and monitoring strategies. In Paraguay, the electricity utility (ANDE) signs a performance agreement with the line minister and the ownership unit (Consejo Supervisor de Empresas del Estado). The agreement is enforced by the ownership unit through periodical reports that state the level of achievement of targets. Grupo CEEE and CAESB in Brazil also sign a performance contract with policy formulation authorities. Other state utilities established different objective that are linked to Development Plans. For instance, SOEs in Costa Rica set, together with the sector minister, development goals which are monitored in the context of the National Evaluation System. Finally, some utilities use scorecard methodologies. These are the cases of ANDE in Paraguay, and both ERSSA and CENTROSUR in Peru.

Instruments: The Strategic or Business Plan seems to be the most common mechanism used by SOEs to set objectives, and the annual report the way through which the company informs about the fulfillment of these achievements. Some companies also use public hearings as a way for the members of the Board to explain the results of the enterprise. It is not clear from the responses what constitutes a performance agreement and what a business strategy. Three companies specifically recognized the use of a performance contract to guide the strategic direction of the enterprise. Other mechanisms that complement business plans are the balance score card and the systems of evaluation that are linked to national/local development strategies.

Evaluation authorities: The assessment of the performance of SOEs is dispersed among several authorities. The line ministry, the regulator, and auditing agencies seem to be the principal centers of accountability for state enterprises. In some cases, the company is self-assessed through its Board of Directors. Although less common, some companies are subject to the control of a specific agency such as the SOEs Oversight Council of Paraguay and the Solidarity Fund of Ecuador.

In the case of Companhia Riograndense De Saneamento (CORSAN) in Brazil, which is subject to a Performance Agreement, there is a Committee specially created to monitor and enforce the contract. There is also a Corporate Governance Committee of SOEs responsible for performance as well.

The Parliament has little say in the accountability of SOEs. This is also a trend that can be seen in the context of regulatory agencies where the Parliament is very limited in overseeing the outcomes of the regulatory policies. Although Parliament oversight is particularly seen in Parliamentary or Westminster type of democracies, it would be also desirable to see a greater involvement of the Congress in the discussion of management issues related to SOEs' performance. The involvement of political authorities other than the Executive could constitute a balance to political discretion.

Regulatory agencies in Colombia have a decisive influence in monitoring a company's performance. In the case of the electricity sector, both public and private utilities need to hire an independent consultancy firm to evaluate its annual performance, based on selected criteria. Directive 72/02 of the Energy Commission establishes the need for action and business plans that

define the companies' strategies. It defines financial and non-financial indicators through which, and based on the assessment of the independent auditor, they qualify the risk of the company.

Assessment of Board of Directors and Staff: Another aspect considered in the Performance-Oriented Index is the assessment of the performance of both the members of the Board and the CEO or the Executive Director. The assessment of their behavior is not very strong, with little formal arrangements establishing the specific criteria against which to evaluate results.

Executive directors seem to be subject to higher levels of scrutiny than the members of the Board. This is not surprising, and is consistent with the idea of the CEO as the main responsible for the management of the enterprise. Arrangements to evaluate the performance of the CEO go from less formal (even ad-hoc) mechanisms to more detailed structures of assessment. In the majority of the cases CEO's performance is approved by the Board of the enterprise. In some of these cases, specific criteria have been established, but in others there seem to be no agreed procedures. The most detailed mechanisms include Memoranda of Understandings (MoUs) between the government and the executive director or the assessment of his/her performance against the performance agreement or mechanism through which the company is evaluated (such as the balance score card).

In the case Uruguay, members of the Board and the Executive Director are evaluated through the same procedures as other members of the company (Reglamento de Calificaciones de OSE). In the case of EMELNORTE, the Solidarity Fund signs a Memorandum of Understanding with the Executive Director of the Company. In CORSAN, the CEO is evaluated based on the Performance Contract.

5. BENCHMARKING ANALYSIS

This section compares countries within LAC in terms of the different CG indexes. The assessment also includes a simple regional average for each of the governance dimensions.

A. AGGREGATE CORPORATE GOVERNANCE

Our aggregate measure of corporate governance is a composite index of the different aspects of the governance of state-owned enterprises: legal framework, performance-orientation, professional management, Board and CEO, and transparency and disclosure. This index gives higher weights to the listing of SOEs in stock markets.

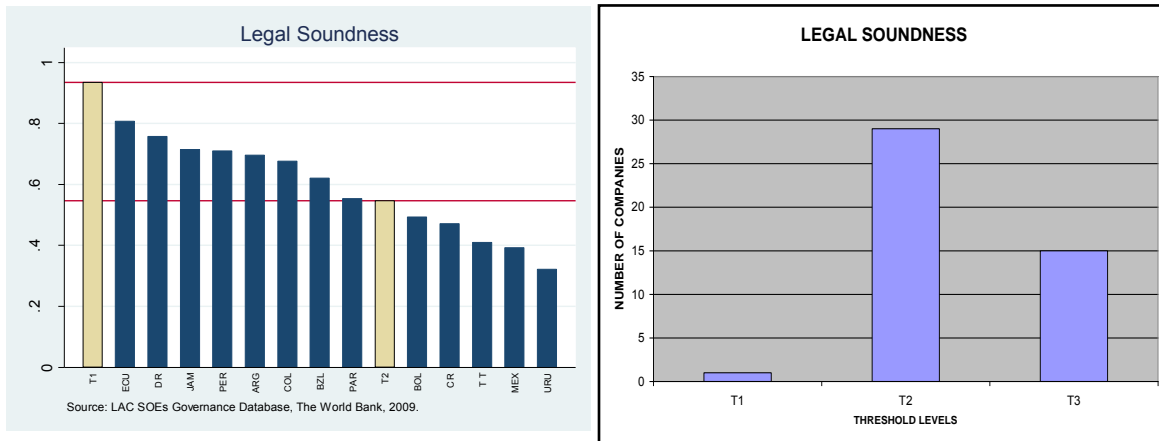
The majority of companies are within T3 levels; none of the SOEs show up in what we consider an ideal type of company (or T1 level). Heterogeneity seems to be higher in companies in T3 levels, where the standard deviation is 0.054 compared to 0.039 of companies in T2 levels. The second large number of companies is within T2 levels, those companies that meet average corporate governance requirements.

The Companhia de Saneamento Basico do Estado de Sao Paulo (SABESP) is the Latin American company that is closer to T1 levels, followed by Electrohuila (Ecuador), Jamaican Public Service Co., Grupo CEEE (Brazil), Aguas del Saltillo SA CV (Mexico) and Empresas Publicas de Medellin (Colombia). These companies are among those in T2 levels, showing a more homogenous composition than enterprises in T3.

B.- CORPORATE GOVERNANCE DIMENSIONS

COMPONENT 1: OWNERSHIP AND LEGAL FRAMEWORK

We privilege a legal framework in which companies are corporatized and subject to similar standards as other private companies. We also give priority to companies whose policies are established and monitored by a specialized government agency. The index gives higher scores to companies regulated by independent commissions or agencies and subject to the same tax obligations as any other private enterprise. The public listing of companies have a privileged score, since we assume that a company subject to the standards of the Stock Commission has better corporate governance.



The Legal Soundness Index reflects the relatively good position of the majority of companies of the region. Most of government corporations have been corporatized and their functioning subject to commercial law. On the other hand, there is only one company that has been listed. SABESP in Brazil is listed both in domestic and international stock markets.

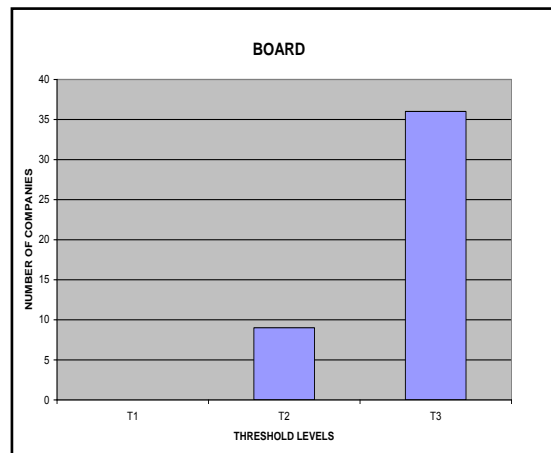
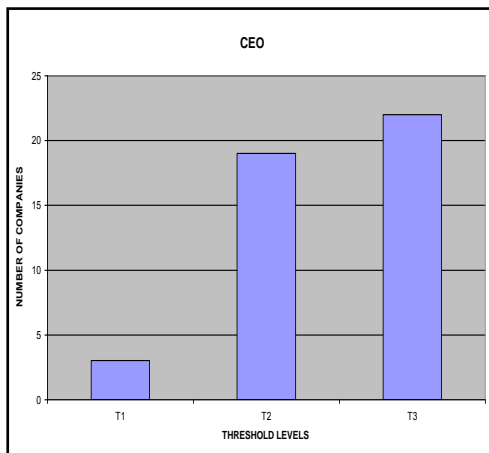
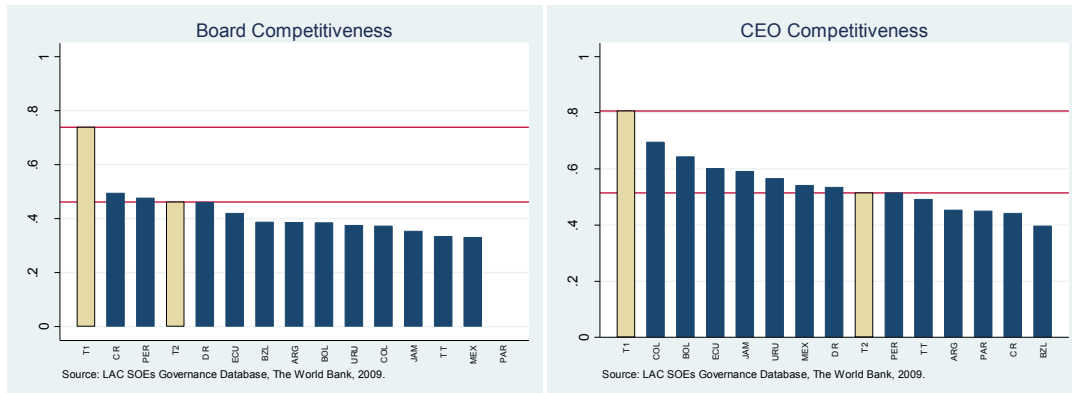
COMPONENT 2: BOARD AND CEO

Our measure of the governance levels of the Board of Directors and the CEO attempts to capture the quality of both the mechanisms to appoint as well as the qualifications of the members of the Board and the CEO. It prioritizes a Board of Directors where political discretion is low, where members of the Board are selected on pre-defined criteria (particularly related to merits and experience), and whose performance is assessed based on different governance arrangements. The more the emphasis on transparency and accountability of the decision-making authorities of a SOE, the higher will be the possibilities of improving performance.

Governance levels are higher at the level of CEOs than at the level of the Board. Moreover, our measure of CEO's governance shows one of the few occasions where companies are at T1 levels. Three companies of our sample (EMELNORTE, ELECTROHUILA, and QUINDIO) fit in T1 standards. All of them belong to the electricity sector. Generally, they are appointed by the Board of Directors, are hired under private sector rules, and their performance monitored according to different mechanisms of evaluation.

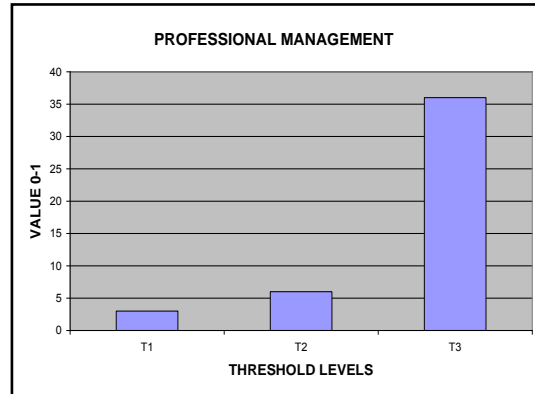
High levels of political influence may determine the lower governance levels of the Board vis-à-vis the CEO. Whereas the selection and appointment of the directors to the Board may not be based on strict meritocratic rules, the selection of CEOs is restricted in the majority of the cases to pre-determined criteria. This includes, but is not limited to, the need for a professional degree and a given level of sector expertise.

Similarly to other cases, T2 levels in both Board and CEO show more homogeneity than companies in T3. Companies such as ESSAP, ANDE, and EMCALI do not have a Board of Directors. Its decision-making body is individual, a President or Director appointed by political authorities.



COMPONENT 3: MANAGEMENT/STAFF

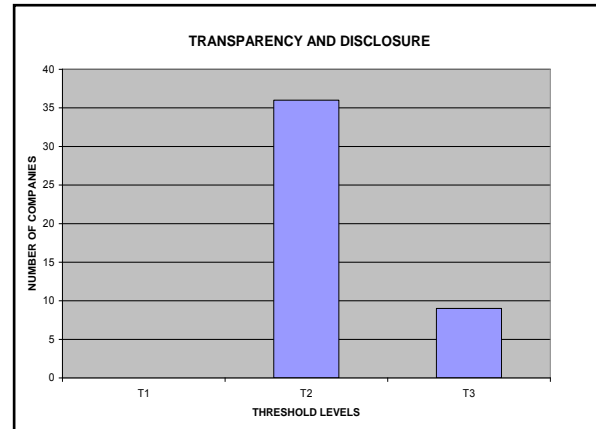
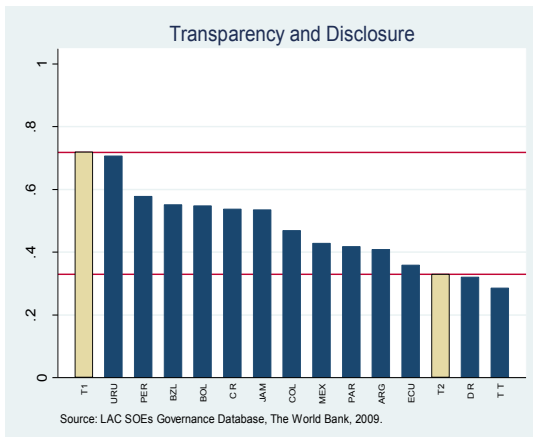
This index measures the composition and characteristics of the enterprise's staff by levels of education, type of training, legal status, salary and benefit levels, hiring and incentives. Employees are a central part of SOEs of the infrastructure sector. They may become a filter to political decisions as a professional and well organized bureaucracy can oppose measures that hinder their career prospects.



The Professional Management Index shows the highest percentage of companies at T3 levels.

COMPONENT 4: TRANSPARENCY AND DISCLOSURE

The transparency index measures the existence of mechanisms that allow transparent disclosure of the company’s financial and non-financial information, the involvement of civil society in decision-making, and the independent auditing of SOEs’ accounts. The three Tier analysis indicates that the majority of SOEs have minimum conditions to achieve the open disclosure of their performance and accounts. In the sample, no SOEs fulfill the desirable criteria.



Together with the Legal Index, our measure of transparency also shows a large number of companies within T2 levels. Uruguay’s Administracion de las Obras Sanitarias del Estado (OSE), Brazil’s Empresa Bahiana de Aguas e Saneamento S.A. (EMBASA), and Brazil’s Grupo CEEEA are the companies with the highest scores. The most significant heterogeneity is found among T2 companies.

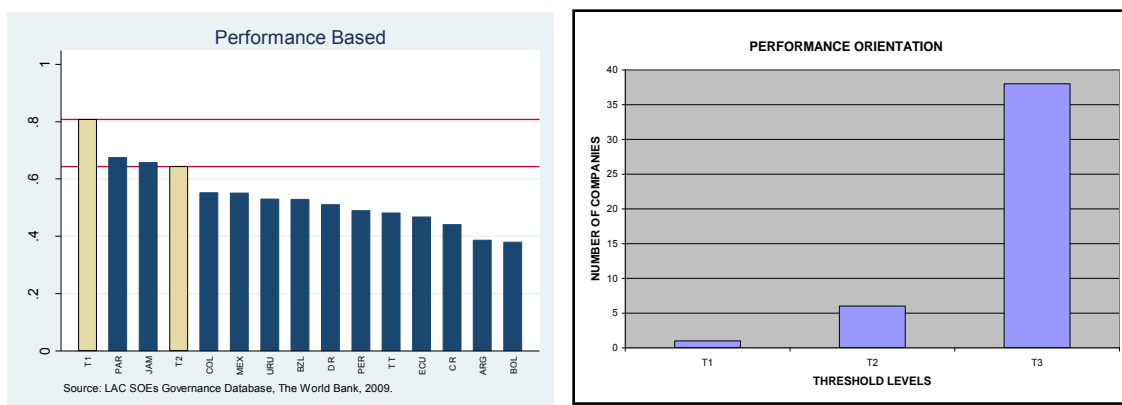
COMPONENT 5: PERFORMANCE ORIENTATION

This component addresses the existence of mechanisms to evaluate the performance of SOEs. We intend to identify those arrangements that allow for a performance-based management of the enterprise. In other words, a management that is oriented towards the fulfillment, and achievement, of objectives and goals. We believe this is one, among many, of the ways to increase state companies’ accountability, particularly because of its orientation towards results. A

performance oriented management, if properly implemented, would facilitate the identification of objectives and, consequently the efficiency of the company. This is particularly the case for SOEs where because of the lack of private investors, incentives for performance are difficult to create.

Together with the levels of professional management, the performance-orientation of SOEs is one of the aspects where SOEs in LAC show the largest deficiencies. This applies not only to the poor focus on external accountability but also to the lack of performance-orientation of the enterprise, especially in the evaluation of its staff.

Our measure of professional management finds three SOEs (CAGECE and Grupo CEEE from Brazil and AySA from Argentina) among the top state corporations of the region in terms of the quality of its bureaucracy. Paraguay’s ANDE is one of the few companies with performance-based schemes (although our measure does not reflect actual levels of implementation).



6. IMPACT OF CORPORATE GOVERNANCE ON PERFORMANCE

This section explores the correlations between various dimensions of corporate governance and the operational performance of utilities in the water and electricity distribution sectors of LAC. We correlated the dimensions described in the previous sections with the level and growth rates of the main performance indicators for utilities in the water and electricity sectors. We ran the governance indicators with the pool of utilities and analyzed the relationship between the governance indicators and each sector separately.

We use utilities’ sector performance data from 250 public and private utilities in the electricity sector, covering 26 countries and 89 percent of the connections in the region. It contains more than 20 variables indicating output, input, operating performance, quality and customer services, and prices. Data for the water sector includes annual information on 1700+ public and private utilities of 16 countries, covering 59 percent of the water connections in the region. Variables for water are similar to those in electricity. The results are presented in the tables in Annex A.

Legal Framework: When we analyzed the correlation between these governance indicators and the growth rates of the set of performance indicators, results suggested that our measure of legal framework is associated with a decrease in average quality of service and an increase in average tariffs. When we evaluated each of the sectors separately, we observed that in water utilities there are some differences in terms of labor productivity where higher soundness is associated with

higher labor productivity. In electricity distribution we observe the opposite trend. The main results hold.

Board of Directors and CEO: The results suggest that the higher the scores in these dimensions, the lower the distributional losses and service coverage. The results also show that the higher the qualifications of the Board, the higher the level of average tariffs. Growth rates in these performance indicators seem not to be significantly affected by the Board and CEO competitiveness. However, when the sectors are analyzed separately, the change in performance in water seems to be more sensitive to these dimensions. Moreover, these dimensions are associated with a higher continuity of the service. Our measure of CEO competitiveness is more related to positive changes in coverage and reduction of average tariffs, while Board competitiveness is associated with positive changes in labor productivity and micro-metering. For the electricity sector, our results were not significantly different than zero.

Management/Staff: When we compare corporate governance indicators and operational performance in electricity and water, only labor productivity had a direct correlation with professional management. Nonetheless, when we disaggregate the results for the water sector, management is associated with higher levels of labor productivity and lower distributional losses. In addition, it is also related with positive significant changes in the continuity of the service, sewerage coverage, labor productivity, and micro-metering.

Transparency and Disclosure: Utilities with higher transparency and disclosure standards are associated with higher levels of service coverage and lower average tariffs. When we analyze each sector separately, data illustrates that electricity utilities have significant coverage increases and tariff reductions. The correlation results are stronger in the water sector where we find that transparency is related with higher levels of efficiency, lower non-revenue water, higher potability, metering, and coverage.

Performance Orientation: As expected, this index is highly correlated with high levels of labor productivity and low distributional losses, as well as significant changes in coverage. Most of these results hold when we assess each sector separately.

Aggregated Corporate Governance: We find that overall corporate governance is highly correlated with high levels of labor productivity and tariffs, as well as with low distributional losses. We also observed positive changes in coverage of the service. The correlation results are stronger in water utilities than in electricity providers. For water companies, the data highlight that overall corporate governance is associated with low non-revenue water, high quality standards, coverage, labor productivity, and high average tariffs. When we analyze the impact of governance on changes in performance in this sector we find significant contributions in the improvement of the continuity of the service, labor productivity, metering, and sewerage coverage, as well as a reduction in average tariffs.

The assessment of the correlations between corporate governance and sector performance in SOEs is the first of its kind. Results are promising: corporate governance is associated with high standards of utilities' performance and growth rates. As expected, performance orientation and professional management characteristics seem to be the highest contributors to performance; all the other dimensions associated with some of the performance indicators. Results in the water sector were stronger, presumably because of the higher number of water utilities in our questionnaire. Further analysis should include more disaggregated data and a higher coverage of the sample. It would also be critical to explore political economy approaches that address issues

of causality, sequencing, and complex interaction effects that contribute to the explanation of SOEs' governance.

7. CONCLUSIONS

Governance arrangements in SOEs in water and electricity distribution present a wide spectrum of designs. While private enterprises are characterized by the adoption of standard corporate strategies, SOE standards vary depending on a country's institutional systems and the characteristics of the service. Thus, the variety of arrangements calls for a careful systematization of governance practices and the identification of successful experiences. Since SOEs are part of the public sector, factors of good and bad performance are directly and indirectly related to the overall governance of a country or province.

This paper emphasized the need for a corporate structure that prevents political intervention, rewards performance, and is subject to public scrutiny. Additionally, it focused on the qualifications of the enterprise's staff. Although we tried to capture as many variables from state enterprises as possible, the focus of this work was on institutional design. In other words, it did not consider the actual effectiveness of governance procedures.

Like a private enterprise, the organizational structure and decision-making of an SOE reflects the interests and involvement of its shareholders, and hence, their strengths and weaknesses. Because these enterprises are part of the public administration, and thus subject to its governance schemes and leadership, they can either benefit or be affected by the performance of its bureaucracy. Government corporations remain a complex and unique organizational mode, caught between the norms of public sector governance and corporate governance (Whincop, 2005). Hence, although mimicking private enterprise arrangements in SOEs might cause significant improvements in management, it can also contribute to the consolidation of corruption and the lack of accountability in those enterprises with little controls and vested interests from governing stakeholders.

The comparison of SOEs in terms of different sector criteria allowed the identification of higher governance levels in companies of the electricity sector. It also found better corporate levels in companies with different degrees of private sector participation over those fully owned by the state. We did not find an association between the level of subsidies and corporate governance. And it was not possible to find a relationship between access to finance and corporate governance. Finally, company size only seems to matter in the water sector.

Our focus on five components of CG allowed us to identify the major pitfalls in issues related to SOE performance orientation and the selection and composition of the Board of Directors. While companies do seem to plan their strategies, what is unclear is the way in which they set and enforce their business objectives. Generally, SOEs are subject to the influences of different authorities, particularly during their planning process. Moreover, our assessment of the impact of corporate governance in the performance of government utilities identified the performance orientation and the professional management of the enterprise as the highest contributors to well-performing utilities.

Rather than focusing on profit maximization, SOEs emphasize social goals and human capital improvements. Thus, manpower is a critical factor of state enterprises' performance. Moreover, in several cases the company's bureaucracy has built a prestige for good performance that has prevented the intrusion of political interests. In our sample of SOEs, directors to the Board

have, on average, high educational levels. Almost all CEOs of public companies have a university degree and in fifty six percent of the cases they also have postgraduate studies.

A major gap is the limited transparency in the appointment of employees. From Board of Directors to low levels of employees, a significant percentage is hired either internally or discretionally, with low levels of competition. Even though internal hiring is also a common pattern for private enterprises, in state enterprises the space for collusion is bigger and, hence, measures need to be taken to avoid low levels of professionalism and political appointees.

Good management of SOEs presents government bureaucrats with different challenges. First and most important, state enterprises face conflicting goals that affect the establishment of a business strategy. Several departments usually compete for moving their agenda into the priorities of the company, affecting the prioritization of the service. Most importantly, intrusions in the companies' business adopt informal, ad-hoc, approaches, that prevent the company from making these costs explicit. The lack of profit-orientation prevents SOEs from identifying ways to improve efficiency and performance. Because low revenues can be compensated by government subsidies, efforts to make the company sustainable fall to second place. Third, poor accountability systems (being at the regulatory or management levels) prevent the development of an ownership structure that triggers efficient behavior from senior management.

Although it is too early to formulate policy recommendations, both the literature and the practices in the region help in identifying some potential actions. Considering public enterprises as private companies can in some cases lead to wrong diagnoses and, hence, reform plans. Some, if not the majority of SOEs in water and electricity distribution are not driven by profits, making difficult the identification of corporate incentives. As stated by Whincop, it makes sense to design governance appropriate to the form rather than to emulate the incentive structure of other alternatives. This calls for the identification of governance schemes that focus on the factors that may trigger efficiency, reducing the space for corruption and capture by vested interests.

It is in this context that accountability emerges as the main governance aspect of SOEs. In the cases of companies with high levels of corruption and inefficiency, accountability systems should prevent discretionary management (both from management and political authorities) and create the incentives for good performance. Regulation and performance-based management could be considered complementary ways of achieving these goals; although good care needs to be taken in creating checks and balances such as parliamentary oversight and state auditing.

A final observation is related to the importance of tailoring governance strategies to a company's realities. This paper analyzed cases of both full and partial state ownership. Among those with partial state ownership, particularly those with significant private sector participation, a governance design reflecting the incentives of private enterprises seems more appropriate. For companies with significant gaps in both performance and management, transparent accountability mechanisms should be considered. A third group of companies, those with full state ownership, characterized by good sector performance and management need to strike a balance between private sector orientation and public accountability, i.e. profit maximization behavior and social responsibility appealing behavior. Finally, governance design needs to take into consideration sector differences. Technology and sector dynamics also determine the nature of management.

F. BIBLIOGRAPHY

- Andres, Luis, J. L. Guasch, S. Lopez Azumendi. 2006. "Assessing the Governance of Electricity Regulatory Agencies in Latin America and the Caribbean: A Benchmarking Analysis". Policy Research Working Paper 4380. The World Bank. Washington DC.
- Baietti, Aldo, W. Kingdom, and M. van Ginneken. 2006. "Characteristics of well-performing public water utilities". Water Supply and Sanitation Working Notes. The World Bank, Washington, DC.
- Department for International Development (DFID). 2005. "Review of China State-Owned Enterprise restructuring and Enterprise Development (SOERED) Project". London.
- Erakovic, Ljiljana, and M. Wilson. 2005. "Conditions of Radical Transformation in State-Owned Enterprises". British Journal of Management. London.
- Gomez Ibañez, Jose A. 2007. "Alternatives to Infrastructure Privatization Revisited: Public Enterprise Reform from the 1960s to the 1980s". Policy Research Working Paper 4391. The World Bank.
- Government of Australia. 2005a. "Australian Government Presentation to The Policy Dialogue on Governance in China". Beijing.
- _____. 1999b. "Principles and Better Practices of Corporate Governance in Commonwealth Authorities and Companies". Sydney.
- Government of New Zealand, State Services Commission. 2007. "New Zealand's State Sector Reform: A decade of Change". From www.ssc.govt.nz
- Irwin, Timothy and Yamamoto, Chiaki. 2004. "*Some Options for Improving the Governance of State-Owned Electricity Utilities*". Energy and Mining Sector Board Discussion Paper. Paper No. 11.
- Jones, Leroy P. 1991. "Performance Evaluation for Public Enterprises," World Bank Discussion Paper n. 122, World Bank.
- Legreid, Per, P. G. Roness, and K. Rubecksen. 2006. "Performance Management in Practice: The Norwegian Way". Oxford.
- Mesnard, Mathilde. 2000. "Institutional complementary and corporate governance: a reassessment of the Russian transition failure". Paper for the International Society for New Institutional Economics' Annual Conference 2000. Tuebingen. Germany.
- Nellis, John. 1988. "Contract Plans and Public Enterprise Performance". Policy, Planning, and Research. Working Papers. Public Sector Management and Private Sector Development. The World Bank.
- Organization for Economic Cooperation and Development (OECD)a. (2004) "OECD Principles of Corporate Governance". Paris.
- _____. 2005b. "Corporate Governance of State-Owned Enterprises: a survey of OECD countries". Paris.
- _____. 1999c. "Greek Public Enterprises: Challenges for Reform". Paris.
- _____. 2005d. "OECD Guidelines on Corporate Governance of State-owned Enterprises". Paris.
- Shirley, Mary M. and Lixin Colin Xu. 1997a. "Information, Incentives and Commitment: An Empirical Analysis of Contracts between Government and State Enterprises", Policy Research Working Paper n. 1769, World Bank.

- _____ 1999b. "Bureaucrats in Business: The Roles of Privatization versus Corporatization in State-Owned Enterprises". United Kingdom.
- The World Bank. 1988a. "Bank Lending for State-Owned Enterprise Sector Reform: A review of Issues and Lesson of Experience". Washington.
- _____ 2006b. "Held by the Visible Hand: The Challenge of SOE Corporate Governance for Emerging Markets". The World Bank Corporate Governance. Washington.
- _____ 2006c. "SOE Corporate Governance Country Assessment Peru". Corporate Governance Policy Practice. Private Sector Vice Presidency. Washington.
- Thynne, Ian. 1998. "Government companies as instruments of state action". Public Administration and Development. Vol. 18, 217-228.
- United Nations. 2007. "Public Enterprises: Unresolved Challenges and New Opportunities". Publication based on the Expert Group Meeting on Re-inventing Public Enterprises and Their Management. New York.
- Vagliasindi, Maria. 2008a. "Governance Arrangements for State-Owned Enterprises". Policy Research Working Paper 4542. The World Bank.
- _____ 2008b. "The Effectiveness of Board of Directors of State-Owned Enterprises in Developing Countries". Policy Research Working Paper 4579. The World Bank.
- Whincop, Michael J. 2005a. "Corporate Governance in Government Corporations". Key Centre for Ethics, Law, Justice and Governance. Griffith University. Australia. Ashgate Publishing Limited.
- _____ 2000b. "The Fiduciary Concept and Rent-seeking in Government Corporations". Key Centre for Ethics, Law, Justice and Governance. Griffith University. Australia.
- Wong, Simon C. Y. 2004. "Improving Corporate Governance in SOEs: An integrated Approach". Corporate Governance International. Volume 7. Issues 2.

ANNEX A: Additional tables

Table A.1: Correlation between CG indexes and performance – Water and Electricity distribution Sectors (in levels)

	Distributional Losses	Quality of the Service	Coverage	Labor Productivity	Residential Tariffs
Legal Soundness	-0.41	0.05	-0.26	0.29	0.39
CEO Competitiveness	-0.39	0.08	-0.33	0.08	0.36
Board Competitiveness	-0.22	-0.14	-0.12	0.10	0.14
Professional Management	-0.24	0.13	-0.08	0.34	0.22
Transparency & Disclosure	0.14	-0.16	0.37	0.24	-0.31
Performance Orientation	-0.25	0.28	-0.09	0.26	0.22
Corporate Governance	-0.44	0.09	-0.20	0.40	0.37

Table A.2: Correlation between CG indexes and performance – Water and Electricity distribution Sectors (in growth rates)

	Distributional Losses	Quality of the Service	Coverage	Labor Productivity	Residential Tariffs
Legal Soundness	0.04	-0.31	0.14	-0.10	0.26
CEO Competitiveness	0.05	-0.10	0.35	0.01	0.06
Board Competitiveness	-0.06	-0.10	-0.08	0.18	0.00
Professional Management	0.03	-0.11	0.07	0.12	0.01
Transparency & Disclosure	-0.02	-0.04	0.15	0.10	-0.37
Performance Orientation	0.18	0.09	0.30	0.13	0.01
Corporate Governance	0.07	-0.20	0.31	0.12	0.02

Table A.3: Correlation between CG indexes and performance – Electricity (in levels)

	Distributional Losses	Duration of Interruptions	Frequency of Interruptions	Coverage	Labor Productivity	Residential Tariifs	Industrial Tariffs
Legal Soundness	0.02	0.39	0.32	-0.32	-0.41	0.42	0.42
CEO Competitiveness	0.17	0.28	0.41	-0.02	-0.51	-0.19	0.22
Board Competitiveness	-0.01	0.47	0.44	-0.03	-0.23	0.09	0.50
Professional Management	0.08	0.21	0.10	0.05	-0.07	0.40	0.18
Transparency & Disclosure	-0.19	-0.18	0.00	-0.07	0.20	0.09	-0.23
Performance Orientation	0.06	-0.15	-0.04	0.14	0.31	0.23	-0.26
Corporate Governance	0.06	0.37	0.44	-0.11	-0.30	0.38	0.31

Table A.4: Correlation between CG indexes and performance – Electricity (in growth rates)

	Distributional Losses	Duration of Interruptions	Frequency of Interruptions	Coverage	Labor Productivity	Residential Tariifs	Industrial Tariffs
Legal Soundness	-0.10	0.36	0.30	0.19	-0.10	0.15	-0.01
CEO Competitiveness	-0.01	0.09	0.01	0.02	-0.19	-0.08	-0.26
Board Competitiveness	-0.09	0.10	0.05	0.00	0.07	0.00	0.02
Professional Management	0.24	0.09	0.13	-0.15	-0.31	0.02	-0.30
Transparency & Disclosure	-0.03	-0.03	0.16	0.32	0.17	-0.28	-0.49
Performance Orientation	0.28	-0.20	-0.14	0.03	0.04	-0.34	-0.16
Corporate Governance	0.09	0.16	0.18	0.17	-0.11	-0.18	-0.40

Table A.5: Correlation between Corporate Governance indexes and performance – Water Sectors (in levels)

	Non Revenue Water	Continuity of the Service	Potability	Water Coverage	Sewerage Coverage	Res. Water Tariffs	Res. Sewerage Tariffs	Labor Productivity	Metering
Legal Soundness	-0.33	0.34	-0.05	-0.08	0.09	0.29	-0.01	0.54	-0.48
CEO Competitiveness	-0.02	-0.52	-0.12	-0.13	0.26	0.23	-0.23	0.07	-0.02
Board Competitiveness	-0.23	-0.12	0.31	0.29	-0.04	0.01	0.12	0.15	0.03
Professional Management	-0.27	-0.13	0.24	0.23	-0.07	0.31	0.11	0.53	-0.09
Transparency & Disclosure	-0.29	0.09	0.31	0.39	0.17	-0.11	0.32	0.26	0.26
Performance Orientation	-0.37	-0.23	0.62	0.35	0.18	0.17	0.03	0.46	0.21
Corporate Governance	-0.42	-0.14	0.41	0.32	0.17	0.30	0.10	0.59	-0.04

Table A.6: Correlation between Corporate Governance indexes and performance – Water Sectors (in growth rates)

	Non Revenue Water	Continuity of the Service	Potability	Water Coverage	Sewerage Coverage	Res. Water Tariffs	Res. Sewerage Tariffs	Labor Productivity	Metering
Legal Soundness	0.11	-0.37	0.25	-0.24	0.13	-0.04	0.17	-0.05	-0.03
CEO Competitiveness	-0.04	0.70	0.17	0.24	0.33	-0.52	-0.38	0.01	-0.17
Board Competitiveness	-0.10	0.36	0.22	0.02	-0.21	-0.03	-0.32	0.32	0.28
Professional Management	-0.21	0.27	0.16	-0.23	0.25	-0.23	-0.20	0.29	0.36
Transparency & Disclosure	0.09	0.32	-0.01	0.28	0.20	-0.13	-0.09	0.08	0.32
Performance Orientation	-0.05	0.42	-0.73	-0.11	0.55	0.13	0.37	0.41	0.51
Corporate Governance	-0.06	0.48	0.05	-0.04	0.39	-0.25	-0.13	0.30	0.41