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Water: Rights, Flexibility and Governance: A Balance that Matters?¹

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Notes for a panel presentation
at the conference on

“Allocating and Managing Water for a Sustainable Future: Lessons from Around the
World”

Natural Resources Law Center
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¹ This is not an academic or theoretical document. It mostly reflects my experiences in dealing with water law and regulatory reform in Latin America. It also reflects experiences in water supply and sanitation in the region, after reforms, particularly the so known as Buenos Aires concession. Materials on this case come mostly from third party publications. The subject of discussion is in a state of public debate, and therefore very fluid. Therefore, the purpose of the paper is to contribute to a critical discussion, rather than to reflect any agreed state of the arts. I am indebted to Professor Peter Rogers, from Harvard, who, by making a link between flexibility and governance, started the thoughts which are the core of this paper. I am particularly grateful to David Getches and Chuck Howe for suggesting my participation at the 23rd Summer Conference of the Natural Resources Law Center, University of Colorado School of Law.

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The responsiveness of water, and water related services, to market forces, has been one of the main thrusts in water policies for the resource and its products in the last ten years. Marketing of water resources, light regulation, competition for and in the market, contestability of markets, and regulation of earnings according to price cap methodology, have strongly been proposed, and in a number of cases implemented, in Latin America.

The purpose of this paper is to discuss some regional experiences with the application of market approaches, and to discuss to what extent regulation of water, and water related services, may require an update, based on comparative legal analysis, with a view to better governance.

In broad legal terms, a market is a set of contracts, whereby actors trade, in different manners, their rights to different things or services. What can be traded and how, is determined by social principles, perceptions and attitudes; ethics; technology; and the nature of the things, or services, to be traded.

Thus, for the Romans, and for many others, trade of human beings, slavery, was acceptable. Moreover, for the Greek slavery was an act of mercy, since the defeated could be, and often were, killed. In some cultures it is perfectly acceptable to trade women and children and drugs, in other it is a crime. It is well known that since Roman Law some things are extra-commercium, ie, non-tradable among private parties.

Thus, what is marketable, and how is it so, is contingent to specific legal systems. Institutions translate into rights and duties social perceptions and ethics. Authority, property, monopoly of enforcement, contracts, and conflict adjudication are part of the overall context determining when, and how well functioning, there is a market. Certainty, reliability, security of rights, competition and predictability are some of the elements determining the smoothness, continuity and regularity of market operations.

Somehow the history of civilization may be loosely paralleled with processes to remove limitations to market forces. However, miscalculations regarding the actual existence of effective competition, the extent of externalities, the nature and marketability of the things or services to be traded, and the incentives actually provided to either competition or monopolization, may result in unwanted, or at least non-explicitly intended, rent transfers and windfall profits. Water law and the regulation of water utilities provide fertile grounds for examples of what happens when the assumptions of legislation or regulations regarding competition and the incentives of market forces do not hold in practice.

1. Water Law and Water Ownership

In Roman Law, terrestrial waters could be public or private. The distinction was based on magnitude, perennality and the opinion of local inhabitants (*existimatio circumcolentium*). According to Bonfante references to the common character of flowing waters (*acqua profluens*) have been understood to refer to common use of such waters, and not to ownership.² Thus in Roman Law water was considered important enough, scarce enough, and useful enough, to be publicly or privately owned. Here we find an early indication that water was granted, albeit implicitly, an economic value.

However, water is not an ordinary commodity. The peculiar characteristics of water resources stem from its multiple environmental, economic and social roles. They include, **inter alia**, public good aspects; external effects; imperfect competition; risk, uncertainty, and imperfect information; potential for social and environmental inefficiencies and inequity, and vulnerability to monopolization.³

These peculiarities have resulted in water rights systems which are hard pressed to strike a balance among the different demands and requirements resulting from multiple roles and unique physical chemical and biological attributes. Private incentives, resulting in investment and development, have to be marbled with public interest considerations, such as sustainability and prevention and control of monopolies.

Thus, water rights perform, or should perform, two main functions: i) a structural role; and ii) a regulatory function.

The structural role is crucial to investment, since it determines the manners in which private users will relate to the resource and invest in water related development, of their own free will and voluntarily⁴. In this regard water rights are institutional socioeconomic tools. Security and transferability are the two main attributes of this function. According to some authorities the structural attributes do also impinge on conservation.⁵

In some systems, recognition and acknowledgement of traditional customary rights are important elements in the structural design of water rights.

² Bonfante, Pedro "Instituciones de Derecho Romano" trad. de la 3a ed. ital, de Bacci, Luis y Larrosa, Andres, revisada por Campuzano Horma, Fernando, Madrid, 1929 p. 313-314 and p. 322.

³ See, generally, Colby-Saliba, Bonnie and Bush David, "Water Markets in Theory and Practice: Market Transfers, Water Values and Public Policy", Studies in Water Policy Management No. 12, Westview Press, Boulder, Colorado, USA.

⁴ This structural role of water law was spelled out in the Report of the Secretary General of the United Nations for Committee on Natural Resources, E/C.7/1993/2.

⁵ Ciriacy Wantrup, S. V. "Dollars and Sense in Conservation", Circular 402, University of California, Berkeley, California, USA, 1952.

Regulatory aspects of water rights intend, **inter alia**, to conserve the water source, ensure sustainability, and protect the rights of third parties, the public and, increasingly, the environment.

2. Water Rights

While in most countries water belongs to the public domain, water use rights granted to private individuals or corporations are protected under the property provisions of national and, in the case of federal countries, state or provincial constitutions. The 1992 Mexican Water Law has incepted a system of water rights, their registration, and transfer, with a view to promote security and stability in water management and use.

Thus, stability of water rights is an important principle in water law, which some authorities have traced back to Roman law.⁶ The impossibility to grant stable water rights negatively affects development. In Zimbabwe, difficulties in acquiring reliable water rights are a main constraint to new viable agricultural investment.⁷

A stable water rights system is an incentive towards investment in the development and conservation of water resources. Stable water rights are useful collaterals, assets, or appurtenances for credit purposes, and also important elements when assessing properties for taxation. Additionally, the stability and certainty of water rights and appurtenant uses provide recognition to existing economies and prevent social unrest.⁸ In many places water rights are adjusted over time. Some well known examples are changes from riparian entitlements to prior appropriation and permit systems, generally accepted by Courts, as long as existing uses are respected; requirements of greater efficiency of use; or adjustments resulting from public interest needs.⁹

A water right usually is a right to use, and ownership of a water right does normally mean a usufructuary power, and not ownership of the corpus of water itself. In some legal systems the usufructuary power can be traded.

⁶ Lex Coloniae Genetivae Iuliae, 43 A.D. according to which waters in public lands open to colonization were subjected to the same uses and charges existing under previous ownership, according to Costa *Le Acque nel Diritto Romano* (Bologna, Italy, 1918) 16-18; according to quotation by Dante Caponera *Principles of Water Law and Administration* (Balkema, Países Bajos, 1992) 30 and 50.

⁷ Thomas P.Z. Mpfu, communication to Ms. Beatrice Labonne, UNDDSMS, August 1, 1995.

⁸ *Syllabus and Opinions* (United States Supreme Court 1984, No 80); "La Pampa vs. Mendoza" (Argentinean Supreme Court 1987, L-195-XVIII); Françoise Conac "Land and Water Rights Issues in Irrigated Schemes in Sub-Saharan Africa: Conflicts to be Avoided", *DVWK Bulletin* (No. 16, Paul Parcy Verlag, Hamburg, Berlin, 1989); Beck (Vol. 1, 1991) 366.

⁹ Beck, Robert. E, Editor in Chief, "Water and Water Rights" The Michie Company, Va. 1991, Vol. 1 p. 383; Findley Robert et al, "Environmental Law", St. Paul, Minn, West Publishing Co, 1992 p. 295; Johnson James et al, "Tradability of Water Rights" p.33 no printing place or date available, Sax Joseph, "The Limits of Private Rights on Public Waters", *Environmental Law*, Vol. 19:425.

3. Effective and Beneficial Use

The relevance of water rights as property assets is related to the availability of the resource. The scarcer resource is the most valuable. Therefore, most water laws have provisions that require the effective use of water entitlements, either for a right to be born and kept, or for the maintenance of a valid water right.

The principle of effective and beneficial use is widespread. While the terminology is not uniform, in the German Law (as amended on 23 September 1986); the 1985 Spanish law; the Mexican water law (art. 27. III); the legislation of most Argentinean Provinces; and the laws of the states of the American West, there is a notion that water rights risk forfeiture if not used, or if not used according to the terms of a license or permit.

The rationale behind the principle has been precisely and clearly constructed by the authorities, judges, and legislation of the United States. A typical statement of the rule of beneficial use is: “Beneficial use is the basis, the measure, and the limit of all rights to the use of water in this state ... consistent with the interest of the public in the best utilization of water supplies”.¹⁰

The tenets of the doctrine of effective and beneficial use are: a) water is not to be obtained for speculation or let run to waste (reality of use); b) the end use must be a generally recognized and socially acceptable use; c) water is not to be misused (reasonable efficiency); d) the use must be reasonable as compared against other uses;

A common idea was that the quantity of water was to be no more than needed, the concern being with the possibility of “vesting an absolute monopoly on a single individual”.¹¹ This antimonopoly/antispeculation concern where claimants do not have a specific use in mind continues today.

For a long time it was difficult to assess what happens in practice when water legislation does not have a requirement of effective use. The reason being that national systems of water legislation did not normally grant exclusive-non riparian-based water rights, without adding the requirement of effective and beneficial use.

At present, the state of flux of water legislation in general, and legislation related to water-based public services in particular, has prompted specific research on the subject of water rights and on the consequences of creating water rights without the requirement of effective and beneficial use. It has helped that assessments of the Chilean experience (where water rights are not conditioned to effective and beneficial use) are becoming widely available.

¹⁰ Robert E. Beck, Ed., *Water and Water Rights*, Charlottesville, The Michie Company, 1991, Vol. 2, 1991, 106.

¹¹ *Ibid.*, 107-108.

Natural resources economists notice that non-use, if not penalized with forfeiture may result in “sleeper rights” which increase uncertainty on the quantities of available waters.¹²

The Chilean experience on the issuance of non-conditioned water rights is an apparent validation of the foreboding behind the requirement of effective and beneficial use. A study on the impact of the legal system for water allocation in Chile has found that it is also common for state-owned monopolies that benefited from exclusive rights to be privatized with them, creating legal barriers to entry that maintain the monopolistic characteristics of the sector.

In Chile, the regulatory framework for electricity is based on the existence of competition in the generation of electricity. However, competition practically does not exist in Chile. The water rights of the main hydroelectrical projects belong mainly to a single corporation. The implication of this is that the largest generator has an incentive to appraise projects considering the effects that they will have on the profitability of its intramarginal capacity. It can obtain the monopoly equilibrium overtime by postponing investments. New entrepreneurs will be unable to enter into the generation market because they do not have the water rights to undertake the more efficient projects. Water rights should have been returned to the state prior to privatization, which in turn could have granted them subject to the conditionality of their timely development through new projects by existing producers or new comers.¹³

Thus, the actual operation of the Chilean system appears to confirm the rationale behind the requirement of effective and beneficial use.

Monopolization through the creation of barriers to entry resulting from the control of essential production inputs and natural resources, is standard fare in economics literature.¹⁴ The existence of water markets does not alleviate the situation since in fact “crucial inputs of this kind are not usually traded on competitive markets”.¹⁵ Also, water markets do not reallocate large quantities of water. To the contrary, the amounts historically traded are limited enough for these markets to have been identified as “thin” markets.

Furthermore, for large institutional users the incentives to sell water rights, absent the penalty of forfeiture for non-use, are minor, if compared against the strategic

¹² M.L. Livingston, “Designing Water Institutions: Market Failures and Institutional Responses”, originally prepared for the *1993 World Bank Policy Paper* (place and date of printing unavailable) 8-9.

¹³ Eduardo Bitran and Raúl Saez, “Privatization and Regulation in Chile”, *Brookings Institution Conference on the Chilean Economy* (Washington D.C., 22-23 April 1993) 50-55.

¹⁴ Lawrence Anthony, Sullivan, *Antitrust* (St. Paul, West Publishing Co., 1977) 25, 31, 77.

¹⁵ Mark Armstrong et al, *Regulatory Reform: Economic Analysis and British Experience* (Boston, MIT Press, 1994) 117..

advantages that control of a key production input represents within the market power policies of corporate practices.

Hence, it appears that the absence of a requirement of effective and beneficial use does have a negative effect on water transactions, on water markets, and on efficient water allocations. Empirical evidence on the actual working of water markets in Chile shows that with a few local exceptions market transactions of water rights in Chile have been limited.¹⁶ Water markets have not been the dynamic reallocation mechanism expected by the framers of the water law. Up to 1996 no more than 5% of the water rights in highly utilized rivers had been transferred. And of this 90% of the transactions correspond to non-utilized rights, rather than to reallocations from one productive use to another.¹⁷

As of August 1998 there have been several court decisions on the effects of the Chilean system of water rights. Thus, the Constitutional Court has recognized the right of the Government to regulate the conditionalities of water rights (Rol 60/1997). In addition, the Antimonopoly Commission has recommended that no further water rights be granted until provisions requiring effective use of water are included into the water law (CPC 992/636; CR. 480/97).

4. Governance and Legal Philosophy

In a thoughtful recent paper on Latin American water governance Harvard Professor Peter Rogers states that while the Chilean case is *sui generis*, many mistakes with openness, transparency, participation, and ecosystems were made, in a hurry to get effective water markets set up. "However, the genius of the system is that it is adaptive".¹⁸

In making this statement, regarding Chile, Professor Rogers relies on the assumption that performance can be improved over time by actually regulating the water

¹⁶ See Carl Bauer, *Against the Current: Privatization, Markets, and the State in Water Rights, Chile, 1979-1993* (Berkeley, 1995) p.2: "Private bargaining and exchange cannot coordinate overlapping resources without continuous State intervention, through the courts, if not through other political organs"; p. 57: "These features [of the law] stimulate speculation...they have been favored [by supporters of the law] saying that speculation improves market operations and price signals...they deny criticisms that speculation might distort prices through unequal bargaining power or monopoly control..."; p.171: "The government virtually guaranteed the under-valuation of water rights [resulting in relatively few transactions] when it privatized them without imposing any taxes, fees, or other obligations to the public interest".

¹⁷ Humberto Peña, National Water Director, Chile, "Foro del Sector Saneamiento sobre el Proyecto de Ley General de Aguas" Texto de Exposiciones, Lima, Perú, 8/9 Enero, 1996, p.10/11.

¹⁸ .Rogers, Peter "Water Governance in Latin America and the Caribbean" Inter American Development Bank, Sustainable Development Department, Environment Division, February 2, 2002; p. 27.

rights and monopolies created. All of this within a pragmatic, empirical approach, based on trying and modifying as problems become apparent.¹⁹

In so assuming Professor Rogers takes into consideration, and somehow extrapolates, the American experience and the pragmatic US-Anglo Saxon schools of thought... "whose empiricism recommends them when addressing water resources governance"²⁰ and where: "experimentation with rights over time has led the US to flexible approaches to water governance". "This approach allows for adjustments, when economic and social conditions change, because it does not aspire to build institutions that cover all possible eventualities".²¹

Professor Roger's statements, are paralleled by American Law and decisions on public utilities and their returns: "The Supreme Court's concept of reasonable returns is really a notion of a zone of reasonableness. Confiscation is the lower limit. Exploitation of buyers is the upper limit. If the return is reasonable it must fall between these limits. Clearly, required earnings cannot be represented by a specific sum, nor determined by a precise formula. Rather, they will vary according to the economic conditions of both the company and the economy."²²

One of the best examples of this kind of balanced, pragmatic middle course is a decision of Judge Holmes, determined by judgement and fairness "between Scylla and Charibdis": "On the one side if the franchise is taken to mean that the most profitable return that could be got, free from competition, is protected by the Fourteenth Amendment then the power to regulate is null. On the other hand, if the power to regulate withdraws the protection of the amendment altogether, then the property is nought. This is not a matter of economic theory, but of the fair interpretation of a bargain. Neither extreme can have been meant. A midway between them must be hit".²³

One has to assume that this kind of prudent and balanced legal reasoning is of the essence of the empirical, pragmatic and reasonable approach noted by Professor Rogers. It has deep structural implications in the ways rights are constructed and conflicts are transacted. It provides long term trust and stability. It contributes to the firmness of the

¹⁹ Rogers, op. cit. p. ii, Executive Summary.

²⁰ In this context, Governance means: "the capability of a social system to mobilize energies in a coherent manner, for the sustainable development of water resources. The notion includes the ability to design public policies, and mobilize social resources to support them, which are socially accepted, which have as their goal the sustainable development of water resources, and to make their implementation effective by the different actors involved in the process. Governance is a more inclusive notion than government. It embraces the relationship between a society and its government" (Rogers, op.cit. below, p. 1)

²¹ . Rogers Peter, Water Governance, Fortaleza Draft, Prepared for Inter American Development Bank, February 4, 2002, p. 4

²² Phillips, Charles, Jr. "The Regulation of Public Utilities" PUR, 1993, p.181, Arlington Va. USA, quoting Troxell, "Economics of Public Utilities", 224.

²³ Phillips Jr., 1993, p. 411, quoting Cedar Rapids Gas Light Co. vs. Cedar Rapids, 223 U.S. 665, 669 (1912)

social fabric by effectively creating a constitutional (in the sense of way of being) element of basic social sharing in good and in critical times. A social perception of equitable sharing is important to governance. It prevents frustration and unrest.

"Stability" in the in the context of decisions such as the above, goes beyond the exegetic compliance of a contract or the interpretation of a law. It means long term stability of the social fabric, even at the expense of creating variances in the manners of execution of a contract, or the extent of a right, provided that reasonability is preserved.

Unfortunately, the present situation of Latin America does not seem to endorse, as a matter of course and structural approach to rights and contracts, this kind of reasonable, pragmatic and flexible approach. To the contrary, the present status quo of water law, public utilities legislation, and agreements for the protection of investment emphasize unilateral security and contractual and legal strictures, even if context conditions change. In this system some argue that confiscation occurs when someone has to accept a return lower than expected, even if there still is a profit. Thus, it is not strange to see that water utility owners, are guaranteed returns and rates of exchange, and interest. This despite the fact that distinguished World Bank scholars have pointed out that these kind of guarantees can wipe out the benefits of privatization, by dampening incentives to select and manage programs and projects efficiently.²⁴

In addition, these guarantees do in fact impose serious contingent liabilities on national budgets. They also create two classes of economic actors: those having all the guarantees, despite changes in circumstances, and those, usually ordinary citizens, having none. At times of crises, these contingent liabilities fully hit the systems where they operate. While the overall economy stumbles, economic activity decays, and the population suffers, utility corporations request full and updated payments. By contrast, in the United States, at the time of the Depression, the Court recognized a decline in interest rates and business earnings throughout the country, and was willing to accept lower rates of return.²⁵

The impacts of such systems on long term social sustainability is still unknown, but the series of problems faced by Latin American countries may be a sign of worst to come.

²⁴ Thobani, Mateen, "Private Infrastructure, Public Risk", Finance and Development, March, 1999.

²⁵ Phillips, op. cit. p. 378, and cases quoted there.

5. Latin American Utility Markets

The privatizations of some public utility services associated to water, in Latin America, and their information shortcomings, lack of transparency in regulatory decisions and the ad hoc nature of executive branch interventions, make it difficult to reassure consumers that their welfare is being protected, and that the concession is sustainable.²⁶

Thus, in the particular case of Argentina, it has been said that privatizations were sweet deals, with public utilities becoming private, rather than public monopolies rates in long term contracts being updated according to American inflation, even if prices in Argentina were falling down. Dollar interest rates were high, even if in theory risk was low.²⁷

There are structural reasons for the deficiencies of regulatory systems:

- i) Prejudice regarding the attitude of governments: " It may also be in the interest of the recipient country to make it more difficult to measure realized returns in investments....If investors can make their profits less visible, the recipient country is less likely to **usurp** the profits.... Accounting systems may be specially designed for this purpose, or vertical integration by the regulated firm may be encouraged so that creative transfer prices can reduce measured profits in the relevant industry ".²⁸
- ii) Overoptimistic assumptions, such as those based on notion that market contestability reduces the need for regulation. According to the theory, efficient pricing and production can be forced upon a supplier by the threat of competition, just as well as actual competition. However, while as an abstract construct the theory has gained considerable currency: "its impact on regulatory policies in relation to natural monopolies has been much less significant, simply because the assumptions of perfect contestability on which it is based, notably that the entrant can costlessly leave the market when it is no longer profitable to remain, are rarely encountered in practice".²⁹
- iii) When competition in the market is limited, competition for the market creates some sort of substitute competition, theoretically reducing the needs for

²⁶ Alcazar, Lorena, et all "The Buenos Aires Concession", The World Bank Development Research Group, Regulation and Competition Policy, April 2000, Policy Research Working Paper, 2311, Front Cover.

²⁷ The Economist, March the 2d. 2002. "Special Report on Argentina's Collapse", p. 27.

²⁸ Sappington David, 1986, "Comments to Regulatory Bureaucracy", Information Economics and Policy 2 (4):243-58, according to quotation in Comment on "Regulation, Institutions and Commitment in Telecommunications" by Levy and Spiller, David Sappington, Proceedings of the World Bank Annual Conference on Development Economics", 1993, p. 256.

²⁹ Ogus Anthony, "Regulation, Legal Form and Economic Theory", Clarendon Law Series, Oxford, 1994; p. 33.

regulation and information. Yet, the exercise has been fraught with difficulties. In the case of Buenos Aires it is argued that the bidding process encouraged the companies to offer the maximum rate of discount to renegotiate later, if needed; the concession was awarded as a monopoly, with the incumbent enjoying an almost total advantage over potential competitors; and with a small number of potential bidders.³⁰

- iv) In many cases, privatization laws and regulations have applied the price cap system to regulate the earnings of purveyors. According to the theory the system was easy to understand, relatively simple and easy to monitor, would preserve the incentives of efficiency and ...can be focused precisely on the areas of concern so as not to restrict the operation of the business in other respects. The system was supposed to require reduced information, consequently less prone to capture, and in addition temporary, to last only until the installation of full competition. Competition, particularly in water supply and sanitation, does not always happen.³¹ In practice the system was affected by several problems, including the fact that it required a good deal of information, in order to establish cost reduction potentials. In England it has resulted in weak accountability and lack of procedural safeguards. This problem, the reliance of regulators on information provided by firms, and the history of bargaining between them, all suggest that the system may not be as resistant to the influence of private interests as its proponents hoped.³²

In Latin America, a prejudiced view of government, and a reliance on a theoretical low information need has resulted on the design of weak information and follow up systems, with reduced legal capabilities to seek information allowing to control the prudence and reasonability of both operational and investment costs and the monitoring of price transfers. Absent the information requirements of rate of return regulations, monopolistic companies may have incentives to maximize profits, particularly if they are part of holdings. Moreover, few systems have good regulatory accounting, since the basis of the system was that limited information was needed.

The Chilean water utility regulator has realized this constraint, and is now requiring that companies provide more information on costs, expenses and income. Companies are, predictably, challenging the need, usefulness and benefits of the request.³³

³⁰ Ferro Gustavo, "El Servicio Publico de Agua Potable y Saneamiento en Buenos Aires, Privatizacion y Regulacion" , Buenos Aires, 1999. This agrees with data on limited number of bidders in most water supply and sanitation biddings provided by Vivien Foster at the "Primer Encuentro de Entes Reguladores de las Américas", Cartagena de Indias, Colombia, Octubre, 2001.

³¹ Maria Elena Corrales, Draft Proposal "Gobernabilidad de los Servicios de Agua Potable y Saneamiento en América Latina", preparada para el South American Committee del Global Water Partnership. Santiago, Chile, March 2002, p.9; Rees Judith (s/f) "Protecting the Consumer" no printing place or date, p.5

³² Ogus, op. cit. p. 312/313.

³³ El Mercurio, Santiago de Chile, Economía y Negocios, 13 de Abril, 2002 p. B3.

In addition to structural reasons, the quality of regulations and privatization processes was affected by constraints specific to particular sites and timing. Thus, again in the case of Argentina, it is claimed that the Buenos Aires Water Concession was affected by:

- Fiscal deficit, a sense of urgency in the privatization, and limited experience, which resulted in the neglect of the specific restrictions posed by Buenos Aires situation.³⁴
- The pervasive notion that it was possible to approach water services according to paradigms developed for, and the technical characteristics of, more dynamic and innovative services, such as telecommunications and electricity.³⁵
- Tariffs were supposed to be fixed in real terms, for ten years, but during the first seven years of the concession they had a 45% increase.³⁶
- Coverage increase did only reach 70% of the contract goals, taking into account works built by third parties and the recording and legalization of already existing works. If existing works and third party constructions are not counted, real coverage expansion by the firm would be 40% for water and 20% for sewerage.³⁷
- Investment levels were lower than expected, but the reductions in investment were not reflected in lower tariff levels.³⁸
- The initial conditions of the concession were never honored. This means that the rationale behind the bidding process was very weak and that the competition process had important failures in protecting the users. From the beginning the concessionaire asked for the renegotiation of contractual conditions and changes in the contractual liabilities have been numerous and important. Renegotiations were not consulted and most decisions favored the enterprise, creating the idea of contractual opportunism.³⁹

³⁴ Corrales, comments to Draft proposal prepared by Peter Rogers.

³⁵ Corrales, Draft Proposal, p. 11

³⁶ Corrales, comments to Peter Rogers Draft proposal,

³⁷ Rogers, "Water Governance...", p. 68

³⁸ Rogers, "Water Governace..." P. 68.

³⁹ Rogers, "Water Governance..." P. 69

- According to Loftus and MacDonald, Aguas Argentinas has been making record profits with this concession, twice the international average and three times the UK water companies average.⁴⁰
- The regulation model has been frail, inefficient and weak. The capture of the regulator and/or the government has been mentioned as one of the main reasons for the Governance problems of the concession.⁴¹

Conclusions

1. Most legal systems grant stable water rights, protected under the property provisions of national constitutions.
2. Yet, in most systems such rights are subjected to conditionalities on behalf of the public interest.
3. In the case where conditionalities were not imposed, i.e. Chile, there is a process of concentration of rights which affect competition in the market of electricity generation.
4. Systems of water rights usually work striking a balance between public and private interests, including the utilization of conditionalities, the creation of ex-post requirements, and the possibility to change water rights systems; provided that a basic core of attributions are respected and preserved.
5. Water rights systems ignoring basic requirements such as effective and beneficial use, have created structural conditions favouring the monopolization of a public good.
6. The regulation of rights in anglo-saxon contexts strikes a balance between the rights and duties of customers, purveyors and changing circumstances.
7. The regulation of water utilities in Latin American contexts try to preserve the formal stability of contracts, and that the intangibility of investors' uncompromised rights remains unaffected, even if there are important context changes.
8. The instruments and guarantees utilized to protect the full intangibility of the rights of investors, in contexts of changing circumstances, may result in utilities taking ever

⁴⁰ Rogers, "Water Governance..." p. 70, referring to Loftus Alex and David McDonald, "Lessons from Argentina: The Buenos Aires Concession" Municipal Services Project, Occasional Papers Series, No 2. Ottawa, April 2001.

⁴¹ Rogers, 'Governance...', p. 72.

increasing portions of national income, creating a perception of unfairness affecting the governance of the system, and eventually affecting its long term sustainability.

9. The quality and governance of Latin America regulatory systems may have been affected by prejudiced notions about the role and attitudes of Government, and by the use of theoretical notions such as contestability of markets and light regulation.
10. The updating of Latin America regulatory frameworks will benefit from greater reliance on American regulatory principles, namely the notions of zones of reasonableness, information principles, and criteria to determine the reasonability and the usefulness of costs and investments.