PROGRAM ON EFFECTIVE INSTITUTIONS FOR EFFICIENT MARKETS OF THE INSTITUTE OF THE AMERICAS

INSTITUTIONAL DESIGN AND REGULATORY STABILITY IN ARGENTINA

What Makes The Telecommunications Sector So Different?

By

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Executive Summary*

This paper describes Argentina's telecommunications deregulation and seeks to explain why telecommunications has been treated so differently from other sectors by the De La Rúa administration. The initial section introduces the reader to the deregulation of the telecommunications sector in Argentina, setting the stage for the discussion that ensues. Section Two summarizes the positive political theory approach as it applies to regulation and in particular to institutional design. Section Three describes and evaluates institutional arrangements in the regulation of the telecommunications, transportation, natural gas and electricity sectors. Section Four describes the salient features of the evolution of deregulation in the telecommunications sector in Argentina, and Section Five discusses the presence of three necessary and concurrent factors unique to the telecommunications sector that explain the observed regulatory changes. Section Six concludes that the benefits of autonomy, contractual and legal rigidity may not be as great as previously assumed. In the telecommunications case, the flexibility of licenses and the lack of an autonomous regulatory agency were positive, allowing for the policy changes. Autonomy and long-term legislative provisions may be good instruments to avoid temptations in the short term, but may be harmful if they solidify the wrong design decisions over the longer term.

Introduction

The telecommunications sector worldwide has changed radically, both technologically and through regulatory adaptations to technological change. As closed monopolies give way to competition, governments will shape how this impacts the industry. Internationally, deregulation policies have differed so much that only now are individual experiences being compared. Because of the diversity of experiences and results in deregulation, policymakers today may choose from a range of alternatives in establishing national policies.[1]

The telecommunications deregulation model adopted by Argentina changed dramatically after the De La Rúa administration took office in December 1999. During 1998 and 1999, the widely accepted plan was a carefully controlled, gradual deregulation that was intended to minimize unpredictable impacts on tariffs and allow for incumbent operators to adjust to competition over time. However, in September 2000, the new government adopted a fairly radical and abrupt approach with fewer protections for incumbents, and more incentives for new entrants and competitors.

Several factors permitted and even encouraged these dramatic changes in the telecommunications sector, factors that were not present in either the transportation or energy sectors. These factors included: (1) appropriation of telecommunications policy choices by the executive; (2) contractual and legal flexibility in the legal frameworks governing the sector; and (3) leverage and preferential options among the major players, including the government.

In Argentina, telecommunications policy is devised and implemented by the Secretaría de Comunicaciones (Communications Secretariat), which is part of the Ministry of Infrastructure and Housing.[2] The National Communications Commission (CNC) is the regulatory agency housed within the Secretariat, but lacks any real power or independence. CNC commissioners are political appointees, but serve staggered terms, which gives the Commission some degree of stability.

If, in fact, a truly independent regulatory body had existed when De La Rúa assumed office, policy change would have been more difficult and therefore less profound. However, this was not the case. Regulatory policies enshrined in law are more difficult to change than regulations created through administrative fiat, as they usually have been negotiated among a number of interest groups and represent greater investments by government agencies and supporting constituencies. In Argentina, natural gas regulations are embedded in law, whereas telecommunications regulations are based only on administrative rulings.

In the case of telecommunications, the incoming administration, as well as powerful external players favored new approaches, while in the energy and transportation sectors interest groups favored the status quo.[3]

* *Note: The views and opinions expressed in this paper belong to the author and do not necessarily represent those of the Institute of the Americas or its Board of Directors.*

2. Positive political theory, regulation and institutional design

Positive political theory explains policy as the outcome of the social and political interaction of governmental and non-governmental players. In the case of telecommunications policy, several different kinds of private actors may attempt to influence policy. For Instance, incumbent operators may lobby for entry restrictions or continuation of the status quo; potential entrants may demand assistance with market entry; and users may demand subsidies. At the same time, political actors in the executive and legislative branches and at the federal and provincial levels usually differ in their objectives, priorities and resources.

Size, coherence, and availability of information among different groups will determine the outcomes of their interactions. Institutional arrangements governing interactions are also important, but rules of interaction might allow for political control of the outcome, even if the government does not formally monitor the process. As Mathew McCubbins (1999) puts it, "delegation does not necessarily mean abdication." [4]

The design and behavior of regulatory agencies—based on incentives, rewards and constraints—can be analyzed using the same positive framework. Excessive delegation and regulatory autonomy can create problems just as can too little discretion and autonomy. What factors will determine the appropriate degree of discretion and autonomy for each agency in each sector?

From a theoretical perspective, procedural requirements, including mandatory public hearings (as suggested by the American Planning Association (APA) in the United States), may guarantee the participation of multiple interest groups and force regulators to address their demands.[5] From an applied point of view, however, decisions on institutional design and subsequent regulatory behavior tend to flow more directly from political context and relationships than from procedural constraints.[6]

In the Argentine case, Urbiztondo, Artana and Navajas (1998) conclude that the political context and institutional design features both determine regulatory decisions, but in differing proportions in different sectors. One of the choices policy makers have is whether to make a regulatory agency independent of the governing political institutions. Even here, however, "independence" is not a black or white question, since either the executive or the legislative branches may impose conditions on such agencies, which may considerably lessen their autonomy in practice. If discretionary authority is abused, more detailed conditions limiting the agency's authority will inevitably be imposed. But even under the most rigorous limitations, a regulatory institution is likely to retain some degree of discretion, so it behooves policy makers to try to ensure that such discretion is applied fairly and rationally.

3. Institutional design in Argentina's federally regulated services

Telecommunications

The Ente Nacional de Telecomunicaciones (ENTEL)the former publicly owned telecommunications firm, held a legal monopoly over most telecommunications services until the late 1980s. Its privatization in 1990 was among the first and most important of Argentina's privatizations that took place at the beginning of Menem's first term when the country had not yet recovered from the hyperinflation of the 1980s. With privatization, the company was divided into two firms (Telefónica de Argentina, from Telefónica of Spain; and Telecom Argentina, of Stet France Telecom). This duopoly was to provide local and long distance domestic services in the south and the north, respectively. The two companies provided international service through a joint enterprise, and owned other competitive businesses (including one of the three main mobile telephone companies as well as data transmission companies).

By creating a duopoly in local, long distance, and international services, and limiting competition in other segments for seven years (with a possible three-year extension, depending on the achievement of goals, which included an expansion in the number of lines provided), the Argentine government severely restricted the development of a competitive market in the telecom sector. During the exclusivity period, prices were regulated according to a price cap formula, (CPI–X. The X factor was set at 0% during the first two years, 2% between the third and seventh years, and 4% between the eighth and tenth years, should exclusivity be extended.) The exclusivity period ended at the end of 2000.

At the inception of the privatization process, rules governing competition were not defined. However, the sectoral regulatory framework was developed immediately after the bidding process, with the creation of the National Telecommunications Commission (CNT).

Commission members, appointed directly by the executive, could not be removed until the end of their term of office. However, in 1991, when the position of under secretary of telecommunications was created (within the Ministry of the Economy, Public Works and Services), the CNT was integrated into the Ministry and today remains under the control of the executive.[7] In 1996, the position of under secretary of telecommunications was upgraded to a secretary of state and housed in the office of the President. In 2000, the De La Rúa administration moved the CNC (the CNT was renamed in 1997 after assuming authority over postal services) to the newly created Ministry of Infrastructure and Housing. As a result of all this political manipulation, the CNC has become one of the least stable and most politically dependent regulatory agencies in Argentina.

Transportation (Railways)

The national network of railways, operated since 1946 by the state–owned company *Ferrocarriles Argentinos* (Argentine Railways), was maintained and operated under regional concessions from 1993 to 1995. Railroad operations were divided into six freight units and seven suburban passenger units (consisting of the commuter network in the greater Buenos Aires metropolitan area). Urban passenger services outside the Buenos Aires metropolitan area were transferred to the provincial governments. Regulatory jurisdiction remained under federal control. Until 1996, each concession maintained its own regulatory body, but a 1996 presidential decree merged all the railway and land transportation regulatory agencies into the National Transportation Regulation Commission (CNRT) within the Secretariat of Transportation and Public Works. This secretariat remained part of the Ministry of Economy and Public Works until December 1999, when it was transferred to the Ministry of Infrastructure and Housing.

Concession contracts for the various transport services were based on different timelines. Passenger services were concessioned for ten–year periods (except the Buenos Aires subway, which extends for 22 years), while freight services were concessioned for thirty years. Since passenger services had deteriorated under public administration, private management was introduced to improve services and avoid large new public investments in electrification, air conditioning, or other needed improvements. The passenger service contracts allowed for extensions of the concessions in ten–year increments, but provided no explicit benchmarks to govern whether the contract extensions would be allowed.

Due perhaps to rapid improvements in services under private management, expectations for further improvements increased. To meet these rising expectations, concessionaires negotiated with the administration on new investments that had not been planned for the initial decade. Proposed tariffs would more than double over a five-year period and concessions would be extended significantly—up to thirty years.

Consumer groups wielded extraordinary influence during this process, prompting the De La Rúa administration to continue bilateral negotiations similar in some ways to those of the previous administration, but with modifications. Modifications included smaller budgets, lower tariff increases, and shorter extensions of concessions. The new administration could have avoided bilateral negotiations by waiting for the concession contracts to expire and organizing auctions to award new concessions to the highest bidders. In fact, had new auctions been announced prior to the expiration of existing contracts (2003-2004), winning bidders could have better coordinated with current operators on major new investments being required by the government.

Natural Gas

Following the privatization of Gas del Estado in 1993, natural gas distribution licenses were awarded to eight private companies (nine since 1999), all of which draw their supplies from the three main production areas in the country (Noroeste, Neuquin and Austral) using two different pipeline operators (North and South). These licenses were granted for 35 years, renewable for ten additional years. A new auction at the end of this period will determine which private entities will continue to provide transportation and distribution services. It is upstream at the production fields where the various producers set competitive prices.

Despite this regional separation at the distribution and transportation levels, regulation is centralized at the federal level and carried out by the National Agency for Gas Regulation (ENARGAS), an autonomous agency created at the time of privatization. The regulatory framework and operation licenses guide ENARGAS decisions. ENARGAS is responsible for approving tariffs (i.e., profit margins) for transportation and distribution companies, tariffs for final users, and the pass-through of gas costs. ENARGAS also verifies safety and quality

requirements, and monitors environmental conditions.

The Energy Secretariat, within the Ministry of the Economy and Public Works, provides input to the regulations governing the sector, though less since privatization. As an autonomous agency created by Congress, ENARGAS maintains primary responsibility for the administration of licenses. Consequently, the De La Rúa administration has little latitude to effect changes in its mandate. Conceivably, Congress could require changes in ENARGAS' responsibilities, but so far, the agency's behavior has not resulted in political controversy sufficient to undermine its position.

Electric Power

Argentina's power sector has undergone a dramatic restructuring since 1992. The process involved vertical disintegration of generation, transmission and distribution, privatization of all activities at the federal level, and the introduction of a new set of pricing and regulatory schemes.

The government established the legal basis for these reforms in 1989 and in 1992, privatized the distribution and commercialization operations of the company Servicios Electricos del Gran Buenos Aires (SEGBA), the public utility that supplied electricity to the Buenos Aires metropolitan area. Since 1992, privatization or concessioning of major assets has occurred in all segments of the power sector, with the exception of some distribution companies, still in the hands of provincial governments.

A detailed regulatory framework, enshrined in law, governs the operation of the three segments of the power sector. In particular, this framework has encouraged strong investment in energy generation, and has provided stable rules resulting in major declines in spot and contract prices of electricity, decentralized power decisions, and enhanced reliability and quality of supply.

Institutionally, the Energy Secretariat formulates nationwide energy policies, and oversees the functioning of CAMMESA, a non-profit independent operating agency (jointly owned by the government and the power generation companies) that administers the market. Through CAMMESA, the Secretariat sets guidelines for economic dispatch in the wholesale electricity market. (The Secretary of Energy is the chairman of the board of CAMMESA and has veto power over any of its decisions.)

The autonomous federal regulatory agency, the National Agency for Electricity Regulation (ENRE), supervises transportation. Additionally, in the Buenos Aires and La Plata metropolitan areas, ENRE also regulates distribution according to concession contracts lasting 95 years. Although the ENRE has no authority over provincial or municipal companies, the agency consults with the provincial regulatory bodies and influences the entire power sector through rulings that govern the interconnected transmission system.

In the case of electricity, the regulator has had a prominent and important decision-making role, which has certainly contributed to the degree of professionalism and care exercised by the agency. Policy innovations have expanded direct access by large users to the wholesale market, exerting as much competitive pressure on the distribution companies as concession contracts allow. The year 2007 will mark the first contractual revision (aside from the tariff revision in 2002) to the policy. Only then will we see whether the current policy is modified. So far, the De La Rúa administration has introduced no changes to the policy established by the previous administration, but official arguments for more deregulation and competition are gathering momentum.

A comparative analysis of the regulatory agencies

The four federal regulatory agencies described here do not conform to a standard design.[8] Their institutional structures, including such issues as terms of office and provisions for funding, are unique to each agency. They differ significantly in terms of obligations, constraints and powers that define their degree of autonomy from political influence and meddling. However, as was alluded to earlier, autonomy does not guarantee impartiality or stability.

To elaborate on this point, it appears that an appropriate institutional design for regulatory bodies should consider not only the governmental context, but also the economic and political characteristics of the specific sector.

Agency theory would summarize the impact of design and contextual factors as follows:

1. All four of the regulatory bodies were established as autonomous institutions with some degree of discretion on employment, wages, and procurement. However, the CNC and the CNRT were created by presidential decree, whereas the Congress

established ENARGAS and ENRE. One would therefore expect that from the beginning the CNC and the CNRT would be more subservient to the executive and less accountable to Congress than ENARGAS and ENRE.

2. the degree of actual autonomy developed that cannot be explained solely by this difference in legal birthright. In each of the four agencies, directors' appointments last about five years, with reappointments possible only in ENARGAS and ENRE. This increases the likelihood that the directors of these two agencies would be more prone to influences by those political representatives with the authority to reappoint them than would CNC and CNRT where no reappointment is possible
3. Regulatory powers also differ between ENRE and ENARGAS, on the one hand, and CNC and CNRT on the other hand. The former have wide regulatory responsibilities, while the latter act mainly as audit agencies, supervising investments and the quality of service, with no authority over tariffs or contracts.
4. The political bureaucracy has a much greater impact in the telecommunications and transportation sectors than in the energy sector, partly due to the fact that public hearings required of ENARGAS and ENRE reduce the degree of discretion either they or bureaucrats can exercise.
5. With regard to sectoral structure, the existence of several competing firms in every sector reduces the possibility that any one firm or oligopoly could capture any of the regulatory agencies, but this is particularly the case in telecommunications where new entrants include powerful international players and firms face stiff competition in every market segment.
6. Privatization created widely varying timelines for the introduction of competition—ten years in telecommunications and railways, 35 years in natural gas, and 95 years in power distribution (with exclusivity to be reviewed after 15 years).
7. Notwithstanding these varying conditions, the De La Rúa administration had a unique opportunity in the year 2000 to shape both regulatory institutions and policies. The interesting question is why some sectors were targeted for dramatic intervention and others left alone.

ENARGAS and ENRE share institutional characteristics that make their directors less vulnerable to capture by the regulated firms and that also help isolate them from short-term political pressures. The key factors are that Congress appoints their directors and provides them with fairly wide policy discretion, but they remain subject to public accountability through systematic public hearings. In comparison, CNC's and CNRT's roles are limited to oversight and auditing under the supervision of their respective ministries and secretariats. In the telecommunications and transportation sectors, regulatory authority has stayed with the executive departments.

4. Evolution of the telecommunications sector in Argentina

The model applied by the Menem administration: 1990-1999

Just ten years after privatization, several problems in the telecommunications sector have already surfaced. As one of the first sectors to be privatized, and with the privatization taking place in the context of a weak and indebted economy, the government purposely limited competition for a significant period of time, with exclusivity granted to the new operators for seven-to-ten years. Poor planning of the telecommunications sector's regulatory agency, along with imperfect tariff structures for a more competitive environment, have created additional problems. Today, with the end of the ten-year exclusivity term, however, rewards of competition are already being realized.[9] Moreover, as a result of recent price caps, consumers have benefited from improvements in quality and reductions in costs.

During the first seven years after privatization, an oligopoly controlled local, long distance and international services, and enjoyed only limited competition in other market segments.
In January of 1997, the Communications Secretariat issued Resolution SC 49 regarding the regulation of interconnection with the incumbents' networks after the exclusivity period ended. This new order established more precise principles and guidelines for interconnection arrangements, effective in 1998, including:

1. Free negotiation of interconnection agreements by interested parties, with freedom to agree on corresponding prices, terms, and conditions subject to regulatory oversight
2. Equitable treatment with respect to technical or economic conditions;
3. Mutual compensation by service providers for transportation and for completing calls;

4. Use of open architecture networks by the primary service provider, with the obligation to furnish at least one switched-access interconnection point to all users in each local service area with more than 2,000 customers, and the following services under equitable conditions:
    a. Billing,
    b. Customer assistance,
    c. Information,
    d. Directory assistance,
    e. Emergency, collect or operator-assisted calling, and
    f. Calling card charge completion
5. Prices based on long-term incremental costs, with cross-subsidies prohibited;
6. Resale of services under equitable conditions;
7. Maintenance of financial records as prescribed by regulations.

Under these rules, the parties would freely negotiate interconnection charges. In the event of disagreement, the Communications Secretariat would set charges based on long-term incremental costs. In cases where long-term incremental costs could not be established, corresponding price controls would be based on a comparative schedule of prices and conditions for similar services, functions, or components in other countries (Chile, Peru, Mexico, the United States, Australia, New Zealand, Great Britain, Italy, France, Spain, and Germany). Long-term incremental costs were defined as including the direct costs of only those elements strictly necessary for interconnection purposes (including planning, operating, and maintenance costs associated with necessary infrastructure), without taking into account their historical or replacement costs, and with capital costs based on market indicators.

Other international experiences had revealed that joint and stranded costs—which separate historical from prospective costs—often lead to maintenance of some cross-subsidies, making it difficult to base price computations on long-term incremental costs alone. In fact, in the absence of complete pricing flexibility, it is unreasonable to require that only a single price (the access price) be set equal to the long-term marginal cost.

Possibly as a result of these problems, a number of the 1997 provisions were amended in 1998, along with new interconnection regulations. These included:

1. A better definition of long-term incremental costs (including overhead or indirect costs);
2. Clarification of ambiguous concepts associated with interconnection (such as physical interconnection, transit, and co-siting);
3. Inclusion of mandatory services such as billing and collection services, access blocking for customers with unpaid bills, and pre-subscription requirements in all locations with more than 5,000 customers;
4. The requirement that primary service operators provide dedicated long-distance links under equitable conditions and refrain from changing their local service areas without authorization.

In 1998, the government partially extended the exclusive licenses, through a policy of gradual deregulation. The policy allowed four companies—including the two incumbents—to compete in the long-distance market after November 1999, and in the local service market after November 2000. Three additional operators were also allowed to enter the long-distance market in November 2000.[10]

In June 1999, the government then approved the "General Licensing Regulations and National Licensing Plan," to govern what was intended to gradually become a more competitive market. The resolution provided that:

1. In order to obtain a nationwide license, prospective license holders should offer services to 50% of the national population within a period of five years, while a local license required servicing a minimum of three different local areas within the first two years. This would rule out the granting of licenses to any party whose goal was to provide basic telephone service in only one or two cities, a restriction obviously designed to curtail competition and to provide for implicit universal service obligations.
2. New operators would need net assets over $100 million, prior experience in providing telephone service in areas at least half the size of the area they intended to service, and a local partner. These provisions again demonstrate the degree to which the Communications Secretariat ensured that large, well-established and financed operators would characterize the sector.
3. Other conditions were imposed in order to ensure that new operators could not cherry-pick from the top end of the

market. The regulations required new local and nationwide operators to provide geographically dispersed services covering 35% of each area entered.

4. New operators were permitted to set their own telephone rates, although rates could not discriminate against any class of consumers and had to be standardized within the local area in question.[11]

The overall effect of the new resolution was to set a very high bar that smaller operators would find difficult to vault. The end result of the June 1999 resolution was to perpetuate the existing pattern of cross-subsidies between local and long-distance service.

A major difference between the 1997 and 1998 decrees is that the 1997 decree required *extensive* unbundling of service components offered by a primary operator to its competitors, whereas the 1998 decree did not. According to the 1998 decree, any service components requested by a new entrant were defined as essential components that had to be offered separately and covered by separate interconnection agreements. Efforts to promote competition were thus directed toward duplicating the network and avoiding tortuous interconnection negotiations.

Finally, the 1998 decree provided for access pricing and deterrents to changing service providers. (In particular, it did not include provisions for local number portability.) The decree set high interconnection reference charges, according to international standards at the time.[12] Once again, the regulatory model during the late 1990s invited investors to duplicate the network (in order to avoid paying those charges). While this might be a reasonable strategy for a country like Argentina with an underdeveloped telephone network, it need not have been pursued through such tactics as limiting entry and reducing retail competition (particularly in less populated areas where regulated prices are cross-subsidized by higher-than-cost tariffs in more densely populated areas).

Universal service

In July 1999, the Congress passed a resolution establishing new Universal Service General Regulations.[13] The Resolution defined three types of universal service obligations:

(1) Service in high cost zones;
(2) Service to specific clients; and
(3) Other specific services.

In addition, the Resolution created a fund to be composed of contributions by telecommunications operators (beginning with 0.6% of their billings in 2000 and reaching 1% in 2004). Operators had the option to pay or play—they could substitute monetary contributions with direct services valued at estimated net costs. Further, if the subsidy were directed to a specific client, the client would be free to change operators and still keep the subsidy. In this sense, the regulation approved in 1999 was intended to make the costs of universal service more equitable and transparent.

Subsidies for services in high cost zones would be paid to the incumbent operators only when at least 15% of the income that the incumbent received from local service was lost to other local operators (i.e., new entrants). Obviously, this assumes that the impact of competition upon incumbents is reflected in a smaller share of the market, neglecting any possible price effect from new entrants. This leaves open the possibility that the fund would accumulate, yet, incumbents would still not receive a cent, even though they would continue to be obligated to maintain service in high cost areas at prices fixed below costs and without access to cross-subsidies.

Another problem with this scenario remains insofar as the fund administrator must estimate the net costs of universal services. . By choosing not to determine the costs through an auction among potential operators (as in Chile), the law creates the potential for conflicts due to asymmetric information and opportunistic behavior by the fund administrators. Further, instead of a strictly technical or autonomous agency placed in charge of administering the fund, a diverse group consisting of one representative each from the Communications Secretariat, the provinces, the consumers' associations, and two representing the telecommunications operators would administer it.

Synthesis of the Menem administration's deregulation model

By managing entry and competition over the existing network, the Menem administration's deregulation model welcomed network competition and preserved some cross-subsidies. The access price was initially fixed at a high level, by using the long-run incremental cost as the basis for fixing interconnection rates. On the other hand, universal service obligations

were poorly defined, severely punishing incumbent operators.

The De La Rúa administration's new model

The new administration recently approved regulations relating to licenses, interconnection, universal services, and use of spectrum. The first three were included in an unprecedented Presidential Decree issued in June 2000. The proposals were supported by new entrants but have been strenuously opposed by incumbents.

The Presidential Decree

The Decree drastically changed the status quo, improving upon it in many ways, but perhaps over-emphasizing the needs of new entrants and insufficiently attending to incentives for maintenance and expansion of the existing network.[14]

Licenses

The Decree established the following conditions for gaining a license:

1. The size of local areas for new entrants is flexible, but incumbents must maintain their current areas, thus allowing incumbents fewer alternatives for competitive pricing. New entrants may offer differential tariffs within a current local area, but incumbents must offer a uniform price and service.
2. New entrants into the local fixed telephony market and new Internet service providers are <u>not</u> required to contribute 1.5% of their receipts (0.5% to finance the regulator and 1% to the Universal Service Fund) as long as the density of lines within the areas they enter is below 15%. Incumbents, on the other hand, must contribute to the fund regardless of line density rates.
3. New entrants are not limited to providing only one service, but incumbents are, implying asymmetric deregulation between telephony and cable TV, for instance (i.e., cable operators now may provide telephony, but telecommunications operators cannot provide cable TV).
4. New national licenses require a one-time fee of only $5,000. (This contrasts with the new postal service regulation where fees in that amount are charged annually and expected to increase significantly).
5. Incumbents are required to continue services according to their original 1990 licenses, but new entrants are not held to such requirements.

Interconnection

The Decree stipulates that:

1. Calculations of long-run incremental costs shall not include indirect and common costs. This creates a strong disincentive to invest in the network. Common costs must somehow be recovered, yet the incentive under an automatic application of this mechanism is to make greater to use of the existing network, and to avoid further investment.
2. The degree of unbundling needed for interconnection is much greater than required by the previous legislation. (Economists debate the degree to which this is really a problem.) In any case, the new requirement is asymmetric; incumbents must submit reference offers and provide information on accounts, while new entrants are not held to this requirement.
3. The new regulation did not initially address number portability but the final legislation (discussed later) did.
4. The burden of proof about whether actual costs are higher than efficient long-run costs (in order to determine prices of non-essential elements for interconnection) is also asymmetrical—falling upon incumbents, but not entrants.
5. Regulated reference prices (of single services) are much lower than those fixed by the previous administration's Decree 266/98. Specifically, the US2.15¢ per minute fell to US$0.011 per minute for telephone access. While reasonable, a similar criterion was not used regarding the access price for the cellular network. The current US$0.35 per minute charge to connect with a cellular telephone from an incumbent's fixed line network is substantially higher than even the highest price charged to cellular phone users, which is also higher than the marginal cost of providing the service.

Universal service

The new Decree establishes that:

1. The rate is 1% of telecommunications operators' total billing starting in 2000, instead starting at 0.6% and only reaching one percent by 2004.
2. Incumbents may receive money from the fund when new operators fail to attain

20% of telecommunications receipts in the incumbent's original area of exclusivity. The objective of this provision is to compensate incumbents for universal service obligations only when they are hurt by competition. However, as previously noted, here the quantity effect of competition is captured, but the price effect is ignored. This clause also existed in the previous legislation but the current version raises the critical percentage from 15% to 20%.

3. As noted above, only new entrants in local telephony and Internet access providers are exempted from contributions of 1.5% of their receipts when their services are provided in areas with a density lower than 15% (telecommunications lines per inhabitants).
4. In contrast to previous legislation, the calculation of the net cost of universal service (necessary to determine the operator's subsidy), does not include indirect costs, but it does incorporate the non-monetary benefits of universal service. This allows for discretion in resolving potential conflicts among Council members that will administer the universal service fund.

The final legislation approved in September 2000

While relatively minor, changes introduced toward the end of 2000, reduce the asymmetries that characterize assistance to entry in the Decree. The main changes include the following:

1. Pricing flexibility is the same for new entrants and incumbents (as in the 1998 legislation).
2. In low-density areas, the exemption from contributing to the fund for universal service is extended to all participants (not only new entrants). However, this exemption appears to be permanent for the independent operators—local cooperatives—in the interior of the country, subsidizing new entrants that reach agreements with them.
3. The asymmetry in price setting for non-essential services is reduced.
4. Long-run incremental cost is still used to price interconnection rates. Indirect costs are included, but with reference to a more ambiguous most efficient provision in the long run, instead of the previous short-run and opportunistic best technology available.
5. Incumbent operators will receive compensation for losses incurred during the first year for providing Internet access, and for 0610, 0800 and 0810 numbers.
6. Incumbent operators will no longer be regarded as the provider of last resort for universal service, if no other provider can meet net cost requirements. Instead, an auction will be held to select the operator requiring the lowest subsidy—a much more efficient and equitable default provision.
7. Provisions that did not change include the following:
8. Deregulation remains asymmetric between telephony and Cable TV.
9. The minimum investment is still US$2 per inhabitant in the service area entered. Only operators with more than 25% of the market are required to present reference offers publicly, with transparent pricing oriented towards costs and independent audits.
10. Number portability is defined as a right of users, but the method for pricing it remains undefined.
11. Incumbents can receive compensation for universal service they already provide when new entrants hold 20% or less of telecommunications receipts, which incorporates the price effect to a limited degree.

In conclusion, according to normative regulatory policy, deregulation should facilitate the efficient allocation of resources and foreclose the potential for opportunistic behavior. Competition provides a means to this end.

The Menem administration's deregulation strategy was one of very gradual change to a competitive market. The de la Rúa legislation is not only much more flexible regarding entry and operations, but is also biased in the direction of competition and new entrants. This bias also creates a less than optimal allocation of resources that could prove problematic if incentives are not provided to encourage investors to extend the existing network.

5. Institutions, contractual flexibility and policy stability

We present here a simplified collective decision-making model that may explain changes in Argentina's regulatory policy after De La Rúa took office. Positive theories of regulation describe a *demand for* and *supply of* policy change. For example, when public utilities are

regulated, incumbents demand bilateral negotiations with government officials in order to avoid competition or market tests at auctions.

Incumbents typically favor continuing regulations and restrictions to entry, high prices, and preferential treatment over other competitors. Potential entrants to the regulated market demand entry assistance of a different kind (e.g. subsidies or exemptions). Meanwhile, different classes of customers may demand low prices for the particular basket of services they consume. And politicians demand funds to be levied for the service if their control over such funds could benefit their careers. Policy makers balance all these demands with their own individual views and interests and–often implicitly–define their own agenda. We call this process the "demand for policy change."

Politicians and bureaucrats can supply policy change within the context of various constraints, such as laws, contracts, and institutions—all of which determine the availability (and eventually the cost) of various policy options. Changes to laws and contracts rarely occur without any costs at all. However, these costs may surface in many different forms, from legal battles, to more subtle manifestations such as higher interest rates, based on a more negative assessment of the credibility and likely longevity of the country's legal and institutional framework.

Regulatory institutions also defend both their previous rulings and their institutional prerogatives against attempts by politicians to overturn or circumscribe them. They tend to be more or less successful depending on the degree of autonomy they have been able to effectively exercise. According to our proposed model, the likelihood of profound policy change depends on having flexible laws and contracts, on the absence of a truly autonomous regulator, and on changes in policy makers' political or ideological preferences. Flexibility implies a relatively open door to re-interpret the spirit of specific laws, contracts or regulations. Politically dependent regulators can be easily replaced or threatened with replacement, and can be influenced in a variety of ways by the political establishment to go along with changes that may even undercut their previous rulings. Political preferences of policy makers generally change with changes of administration, particularly when a change of party or ideology is involved.

The presence of all three conditions is necessary (but not sufficient) to effect dramatic changes in regulatory policy. The telecommunications policy under the new administration in Argentina serves as a preliminary application of this model.

Why did telecommunications policy change so dramatically with the De La Rúa administration, while regulatory policy in transportation, gas and electricity sectors did not? We believe it was because *only* in the telecommunications sector do we find all three conditions in place.

In both the telecommunications and transportation sectors, for example, the supply side was open to reinterpretation with the end of the telecom duopoly and the ambiguous extension of ten-year concessions due to the demand for higher investments in railways. Both sectors lacked an autonomous regulatory agency that could defend the status quo interpretation of explicit or implicit contracts. However, only in the telecommunications sector was the demand side present (change in political preferences). While it is impossible to know entirely the reasons underlying changes in policy makers' preferences, bureaucrats in the two sectors (the Communications Secretariat and the Ministry of Infrastructure and Housing) do hold divergent views about the merits of markets and how to regulate them. The Communications Secretariat, charged with the telecommunications deregulation, is clearly pro-new entrants and pro-competition, working actively as a consultant to telecommunications firms competing in the local market. On the other hand, the Minister of Infrastructure and Housing, in charge of regulation of the transportation sector, subscribes to the school of regulation that favors direct control.

Yet, as presidential appointees, both agencies' responsibilities are endogenous, not exogenous to the administration. Why then do ministers and secretaries hold different preferences for regulation and competition in different sectors?

One explanation suggests that in the telecommunications sector and the transportation sector the government acted in a consistently myopic and impatient manner to try to boost economic activity as rapidly as possible.

But, in the natural gas and electrical sectors, the administration faced autonomous regulators with some independence and no real excuses to intervene. Furthermore, bureaucrats in the Ministry of the Economy (which oversees these two sectors) are more conservative, and agree with regulatory policies implemented during the previous administration.

Thus, telecommunications is the only sector in which the three conditions identified as necessary for policy change are present. In the other three sectors, the demand for dramatic regulatory innovations did not exist. (See Figure 1.) More importantly, it is evident that strong, independent and legitimate regulatory institutions such as ENARGAS and ENRE can in themselves provide significant disincentives for politically or ideologically motivated changes in the regulatory regime.[15]

been better regulated than telecommunications and transportation from the beginning. In that sense, changes in preferences in the telecommunications sector actually demonstrate a process of catching-up to state-of-the-art regulation, already present in natural gas and electricity.

With regard to contradictory preferences within the same ministry, preferences for telecommunications and transportation were comparable during the Menem administration—

Figure 1: Supply and demand factors explaining changes in regulatory policy in Argentina

	Legal opportunity	No autonomous regulator	Change in revealed preferences	Change in regulatory policy
Telecommunications	Yes	Yes	Yes	Yes
Passenger Train Transportation	Yes	Yes	No	No
Natural Gas	Relative	No	No	No
Electric Power Distribution	Relative	No	No	No

This paper already addressed the reasons underlying changes in policy makers' preferences in the telecommunications sector but not in other sectors, and reasons for contradictory preferences even within the same ministry (the Ministry of Infrastructure and Housing, which oversees both telecommunications and transportation). While we previously suggested that new entrants are stronger players in telecommunications than in the other sectors, other reasons should also be considered. In particular, it is possible that the change in preferences characterizing the new administration is generalized across all sectors (favoring short-run achievements), but has only been expressed in the telecommunications sector because policy change is not possible in the energy sector and existing policies were already oriented toward short-term objectives in the transportation sector.

Additionally, the distinct origins of regulatory control in each of the sectors offers an explanation for changes in preferences in telecommunications, but not in other sectors. Regulation in the energy sector (natural gas and electricity) has exploited free market alternatives since the initial privatization, perhaps because of the specific technical capabilities and training of public officials in those sectors. Thus, historical reasons might explain why the energy sector has

policy makers wanted direct control and regulation, rather than control by market forces. While the telecommunications sector sought to catch up to the energy sector in terms of regulatory control, a similar situation has not yet occurred in the transportation sector. Moreover, a similar inconsistency was apparent during the Menem administration when the energy sector was treated differently than others.[16]

6. Concluding remarks

Between the Menem and de la Rúa administrations, regulatory policy has changed significantly only in the telecommunications sector. Legal opportunity and lack of an autonomous agency were contributing factors, and in the case of the telecommunications sector, the new administration's bureaucrats actively pursued a new approach.

Comparisons with other countries should help clarify some remaining issues and help test the hypotheses developed here. One could argue on the basis of these four sectors that the benefits of regulatory stability are perhaps overvalued. In the telecommunications case at least, the new policies are a big improvement. Ex post facto, the legal and regulatory flexibility allowed the new administration to establish a competitive regime more easily than it could have in the

presence of a strong and independent regulator. Of course, this simply highlights the fundamental trade-off faced by all policy makers when establishing regulatory institutions, between flexibility and predictability, and between autonomy and accountability.[17]

Argentina provides an excellent case study for better understanding the costs and benefits of each of these trade-offs.

Endnotes

[1] See Roger Noll, "Telecommunications Reform in Developing Countries," in Anne O. Krueger (ed.), *Economic Policy Reform: The Second Stage* (forthcoming), (Chicago: University of Chicago Press, 2000), Pablo Spiller and Carlo Cardilli, "The Frontier of Telecommunications Deregulation: Small Countries Leading the Pack," *Journal of Economic Perspectives* 11, no.4 (1997), and Björn Wellenius, "Regulating the Telecommunications Sector: The experience of Latin America", mimeo, 1998.

[2] In October 2000, this new Ministry was terminated and its activities were passed on to the Ministry of Economy and Public Works. In the rest of the paper, however, this latest change is not mentioned again.

[3] In the case of Chile, major changes in deregulation policy do not seem at first sight to coincide with changes in government. See Carlos Diaz, and Raimundo Soto, "Open-Access Issues in the Chilean Telecommunications and Electricity Sectors," paper presented at the IDB seminar: *Second Generation Issues in the Reform of Public Services*, Washington, D.C., (October 1999). However, the Law passed in 1994, which represented an important change in furthering competition in long distance (by improving the resolution of disputes over interconnection in particular), was the outcome of a dispute beginning in 1990, right after the change from the Pinochet to the Awlyin administrations. In any case, changes in Chilean regulatory policy during the 1990s was limited, since the democratic administration after Pinochet had to overcome the negative propaganda suggesting that it would follow the same policies as the socialist government of Allende in the early 1970s, and since the two democratic administrations in the 1990s (Awlyin and Frei) belonged to the same political party.

[4] Mathew McCubbins, "Abdication or Delegation? Congress, the Bureaucracy, and the Delegation Dilemma," *Regulation* 22, no. 2 (1999).

[5] See for instance, Mathew McCubbins and Thomas Schwartz, "Congressional Oversight Overlooked: Police Patrols versus Fire Alarms," *American Journal of Political Science* 2 (1984), Mathew McCubbins, Roger Noll and Barry Weingast, "Administrative Procedures as Instruments of Political Control*", Journal of Law, Economics and Organizations* 3 (1987), Pablo Spiller and Santiago Urbiztondo, "Interest Groups and the Control of the Bureaucracy: An Agency Perspective on the Administrative Procedure Act," *Unpublished Manuscript* (University of Illinois, 1991), Pablo Spiller, "Institutions and Commitment", *Industrial and Corporate Change*, 1996, and Rui de Figueiredo, Pablo Spiller and Santiago Urbiztondo, "An Informational Rationale for the Administrative Procedures Act," *Journal of Law, Economics and Organization* 15 (1999).

[6] Levy, Brian and Pablo Spiller (eds.), *Regulations, Institutions and Commitment: Comparative Studies of Telecommunications* (Cambridge University Press, 1996).

[7] Late in 1993, the positions in the Board of Directors were filled by contest, but in 1995 a new intervention changed the Board.

[8] This section is based on Santiago Urbiztondo, Daniel Artana and Fernando Navajas, "La Autonomía de los Nuevos Entes Reguladores Argentinos," *Desarrollo Económico* 38 (1998).

[9] Regarding the ability to introduce competition after the (extended) exclusivity period, stranded costs are particularly low. Indeed, due to the characteristics of the licenses granted in 1990, the temporal exclusivity and its three years extension contained, in fact, the payments compensating the otherwise uneconomical provision of service in rural areas and to "unattractive" customers until 1997. Therefore, only mandatory uneconomical investments set for the extension period between 1998 and 2000 might be considered as stranded costs to be recovered in the following years.

[10] At about the same time, however, Law 25000 approved Argentina's commitment to the World Trade Organization regarding the elimination of restrictions on access to the local telecommunications market beginning in year 2001, suggesting that at least some sort of more flexible entry conditions would apply.

[11] Operators engage in practices constituting a restraint of trade, furnish cross-subsidies or engage in predatory pricing. Obviously, it was impossible to meet both of the last two requirements, since standard pricing implies the existence of some type of cross-subsidy when different customers –even belonging to the same "target class"– have different associated costs.

[12] The access prices regulated were the following:

With a final price of 2.5¢ per minute for a local call, the margin for local service competitors requiring local access service would only become slightly positive by the end of year 2000.

[13] According to its title, the Resolution was adopted by the CNC, but in fact, it was dictated by the Secretary of Communications, evidence of the "synergy" between these two institutions.

[14] For a critical assessment of this "Presidential Decree" see also Pablo Spiller, "De la ilusión al realismo II: Implementando la plena desregulación y libre competencia en telecomunicaciones," *Expe–Outlook,* no. 56 (August, 2000).

[15] Indeed, it could be argued that changes in preferences show up endogenously (at least more so than the legal opportunity and the lack of autonomy of regulatory agencies, which result from decisions taken in previous periods). Then, in those cases where changes in preferences have not occurred, either there has not been a change in the objectives of political bureaucrats or the change does exist but is not expressed since it has little room to succeed. Under this second interpretation, the evidence considered here appears stronger than otherwise.

[16] As a final illustration of the current contradiction, one could compare innovations in the telecommunications and postal services, both formally decided by the Secretariat of Communications (within the Ministry of Infrastructure). In the first case, where the Secretary of Communications had a leading role due to personal and historical interests, the new rules contain quite deep assistance to entry. In the second case, the Minister of Infrastructure and his delegates within the CNC lead the development of a new set of requirements favoring managed competition by restricting entry and raising costs of small postal operators. While the different regulatory philosophies behind the two cases might explain the surface, other deeper reasons might be illustrative. In particular, the situation of "incumbents" is quite different in both sectors: while incumbent telecommunications operators have enjoyed very high profits, the new concessionaire in the public post faces important difficulties to continue paying the fee it offered to win the concession in 1997. Then, as a "compensatory policy", the government is, in general, more prone to help the operator of the *Correo Argentino* to deal with this solvency problem by restraining the competition faced in the postal market, while it finds more room to "opportunistically exploit" profitable incumbent telecommunications operators.

[17] For similar argumentation see Jean J. Laffont and Jean Tirole, *A Theory of Regulation and Procurement* (Boston: MIT Press, 1993), and Jean Tirole, "The Internal Organization of Government," *Oxford Economic Papers* 46 (1994).