

- Victoria instituted a convoluted access arrangement (called “market carriage”) in 1998. Market carriage is different from the contract carriage that was envisaged in the *Code* and in the Codes of the other states. The implementation of market carriage impairs, in three ways, the ability of shippers in NSW to contract for Bass Strait gas on the Victorian network:
 - NSW gas shippers cannot rely upon any “capacity rights” to ensure uninterrupted gas supplies.
 - The prices for transportation service are highly unpredictable. Those prices can vary greatly (between \$0.26 to \$22.00 per GJ as reported by one potential buyer in NSW) based on whether or not the shipper hits one of the peaks, which are only revealed after the winter ends.⁶
 - Transaction costs for the use of the Victorian system make up a large portion of shipping costs (i.e., up to half of pipeline charges).

Such rules effectively prevent the existing Victorian pipeline network from being used to support the competitive sale of firm transport capacity to NSW.

Some firms do import gas into NSW from the interconnect, but the record is uneven and there is no reason to be hopeful about future prospects for competition from the line. Three retailers (two owned by the NSW government, Energy Australia and Integral) have secured a handful of gas customers. However, they have faced fierce price-cutting by AGL, who has reportedly been selling gas at a loss.⁷

4. AGL has wide latitude to price discriminate in order to raise barriers to entry in NSW proper.

The last general problem involves the excessive discretion allowed to AGLGN regarding the offering of services and the collect permissible revenues. AGLGN can refuse to deal with competitive entrants, like Duke, and then spread its own bypassed pipeline costs to

⁶ Under market carriage, transport pricing uses daily charges rather than yearly reservation charges for firm capacity. Market carriage then attempts to collect the greatest portion of pipeline costs through the assessment of charges on a few peak winter days. The essential problem is that the actual winter peak days are only known after the winter is over. Thus, shippers only know after the fact whether they missed the peak (and paid the \$0.26 figure quoted) or hit it (and paid \$22.0).

⁷ Ord Minnett research paper.

other users. This ability allows AGLGN to raise entry costs for potential or actual rivals at no cost to itself, but at a real cost to its captive customers who pay for stranded facilities.

The only effective remedy is to prevent AGLGN from spreading such costs to others, a goal that requires much greater transparency with respect to the flow of costs into tariffs. Other jurisdictions, including Canada and the US, take competition seriously and explicitly prevent regulated pipelines from using captive customers as insurance against competitive pressures. If IPART were more meticulous and transparent in constructing AGLGN's regulated tariffs, AGLGN would be forced to acknowledge the steep costs of stalling competition and stranding assets. Therefore, IPART's efforts would help prevent future follies similar to the duplicative (and nearly scandalous) investment that Duke found necessary.

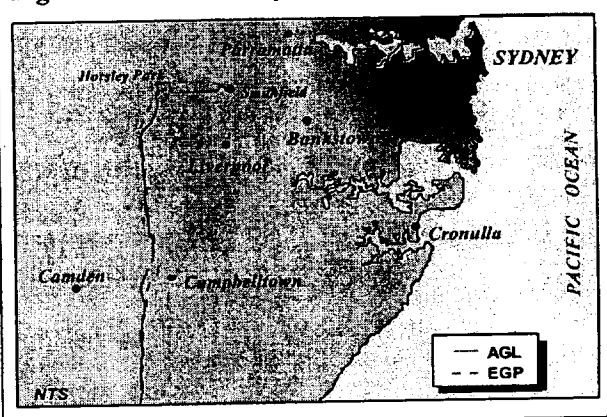
III. THE HORSLEY PARK CASE AND OTHER PROBLEMS

Duke has had great difficulty in securing rights on AGLGN's trunk network as a part of its Eastern Gas Pipeline (EGP) project from the Bass Strait. Exasperated by AGLGN's stalling of the negotiations for capacity rights, Duke spent approximately \$28 million to effectively loop an entire segment of AGLGN's trunk network (See Figure 3).

Duke Energy International "made an attempt to avoid duplicating assets... We [Duke] could not justify economically using AGL's asset [at the terms they were offering, and that will leave AGL's 50 kilometers of pipe] terribly underutilized".⁸

Duke's bypass of AGLGN's line will cost AGLGN nothing, however, as the company has near total discretion to "reload" the otherwise stranded pipeline costs onto other users.

Figure 3: The "Horsley Park Case"



A. The Origin of the Horsley Park Case

The overall intent of the new project is to bring gas-on-gas competition to the Sydney area with the construction of a pipeline linking the supplies of Esso/BHP in the Bass Strait to the Sydney area. This gas supply would then compete against AGLGN's gas purchase contracts from the Cooper Basin and shipped over EAPL.

Originally, the EGP project was intended to link into a point nearer the southern portion of AGLGN's system. The gas would have been moved the rest of the way by AGLGN, under the sort of third party access arrangements the *Code* envisaged. However, Duke was unable to reach a satisfactory arrangement with AGLGN and chose the only alternative, building a parallel pipeline.

⁸ Bloomberg New Release, 5 January 2000.

B. Competitive Failures with Horsley Park

In a business characterized by sunk costs, duplicating a pipeline is not cost-effective, as such duplication increases sunk costs for essentially the same load. Two principal failures led to this situation.

- First, the price and terms under which AGLGN can offer third party access can be unreasonable if the company chooses to make them so.
 - The *Code* intended that the price offered for third party access would reflect the actual unit costs.
 - AGLGN is not restricted to such a well-defined pricing methodology, but can instead negotiate access with prospective customers and offer terms that relate to the potential buyer's alternatives, not to its costs.
 - As the dominant pipeline monopoly, AGLGN will try to set its price equal to the costs of bypass—or above, as in the case of Duke—as AGLGN gains from raising the costs of its rivals.
 - Further, the opacity of IPART's tariff regulation scheme presents a company like Duke with the considerable risk of unjustified price increases later on.
- Second, on top of the pricing problem, AGLGN is not penalized with loss of business. Should a part of AGLGN's system be bypassed, IPART seems willing to allow the company to collect the otherwise foregone revenues from its remaining customers.⁹

Thus, AGLGN has no incentive to compete. It can seek to extract the maximum amount of revenue from a prospective third party access customer. If it fails and loses that customer, it can collect the lost revenue from others.

Figure 3 demonstrates the obvious extent of the market failure around Horsley Park. Duke's pipeline will traverse almost exactly the same route as the bypassed portion of AGLGN's system, even to the point of using the same right-of-way in many places. Horsley Park's is the most blatantly "uneconomic" bypass case we have witnessed anywhere in the world.

⁹ IPART has not implemented the accounting and ratemaking methods that would effectively prevent AGLGN from reloading such stranded costs on captive users.

C. Customer Contributions

Under cost-based economic regulation (like that envisaged by the *Code* and supposedly practiced by IPART), an asset base is established to determine the size of the investment supplied by the regulated company's owners. The company's investors must recoup this investment, or new investments will not likely be forthcoming.

As a result, the issue of *customer* contributions to a company's assets would appear to be clear: if the regulated company *does not* do the investing, the regulated company does not include a charge for those *customer-provided assets* in its regulated prices. Doing otherwise would entail customers' paying for the same assets twice. But such is precisely what AGLGN has proposed, and IPART, to date, has done nothing to stop it. As such, the issue of customer contributions (of which there have been millions in the past few years--\$12.4 million from one customer alone) is probably the most telling instance of IPART's regulatory ineffectiveness with respect to AGLGN.

The potential problems lie both in gross unfairness and in regulated companies' ability to engage in harmful discrimination among customers. It is unfair for a company to ask a particular customer to make a capital contribution and for that company to fail to recognize the contribution in that customer's subsequent prices. Such capital contributions also enable the company to evade both regulated price controls and outside attempts to enforce fair and efficient treatment for competitors. Capital contributions can be particularly harmful when the regulated distributor is vertically integrated, like AGLGN. In the presence of insufficient regulatory scrutiny, the company can use capital contributions to erect entry barriers; nothing stops the company from demanding steeper contributions from those seeking to purchase independent gas supplies.

IPART has neither recognized the magnitude of the problems caused by capital contributions nor has it indicated that it will prevent such abuses, claiming that "it would be very difficult to accurately identify all customers who had paid capital contributions."¹⁰ Instead of attacking the practice for facilitating price control evasion and user discrimination, IPART

¹⁰ See IPART Draft Decision, Section 14.5.6 entitled "Capital Contributions."

avoids the issue because of its complexity. IPART's only proposed remedy is to assure the customers who made contributions that it takes capital contributions into account when considering total permissible revenue. This action is of no comfort to those who made the contributions.

IPART proposes that dissatisfied customers seek arbitration, an impractical proposal for a generic regulatory and competitive problem. No arbitrator has the brief (as IPART does under the *Code*) to ensure: (1) that prices are broadly fair; and (2) that AGLGN may not engage in acts that either render price regulation ineffective or discriminate in favor of its affiliates (to the detriments of its rivals).

The problem with customer contributions is an obvious signal that IPART does not have the tools to deal with the complicated issue of guaranteeing fair competition on a vertically integrated AGLGN.

IV. REMEDIES

The existing *Code* is an excellent platform upon which to construct a more effective gas competition policy in NSW. We address various evident remedies in this section.

A. Provide Adequate Information for IPART and Users

While information provision is mentioned in the *Code*, there remain severe problems with the quantity and quality of the information provided to users, the excessive claims of confidentiality and the slow response both for AGLGN and IPART. As a result of these problems, stakeholders are frustrated because of their inability to secure vital information on the source of their charges. The existing rules for information provision under the *Code* have so far proven insufficient as the basis for the creation of a competitive gas supply business or just and reasonable tariffs, generally. Without the ability to examine these issues transparently, stakeholders are unable to determine, regardless of the resources they devote to the process, whether or not they are being charged with legitimate costs. As such, companies like AGLGN can engage in subtle cross-subsidies and reload costs, and they can raise entry barriers without concern for the ability of affected stakeholders to fight for their interests.

B. Prevent Reload and Roll-in

In a number of areas in the *Code*, existing provisions need strong enforcement and/or revisions to emphasize that two practices, reload and roll-in, should be barred. Both roll-in and reload help defeat genuine competition, particularly in the face of vertically integrated companies like AGLGN. Each practice allows a pipeline with monopoly power to use that power to load costs from competitive sectors or customers onto customers without meaningful alternatives. Competitive markets allow no such cost shifting.

Competition is also thwarted if an incumbent pipeline can use selective discounting in one place and reload those costs in another place, in order to raise barriers to competitive entry by other pipelines or alternative fuels. The only effective means to prevent the practice is for regulators like IPART, with the support of adversely effected users, to gain sufficient information on costs and tariff models to be able to satisfy themselves that reload and roll-in are not taking place. The *Code* can make noises about preventing these practices (or subjecting

them to approval), but without the information and transparent tariff model in wide circulation, discovering or preventing the practices is impossible as a practical matter.

C. Ensure Effective Ring Fencing/Regulation of Affiliated Transactions

Effective ring fencing would help to prevent cross-subsidization of AGL's competitive businesses. Section 4 of the *Code* covers ring fencing for the various components of integrated companies, but the October 1999 Draft Decision by IPART of AGLGN's proposed Access Arrangements completely ignores affiliate transactions. Effective ring-fencing cannot be enforced without meticulous accounting and reporting requirements and vigorous, active scrutiny of affiliated transactions and the use of common staff and facilities. There is no short cut.

Strong prohibitions against affiliated interest abuses, if fully enforced, could be effective in mitigating the potential for these abuses. The lack of effective enforcement of the ring fencing provisions is a serious omission. AGL and its various affiliates dominate every part of the gas business in NSW.

D. Identify Spare Capacity

Regulating information on spare capacity would help to prevent AGLGN from withholding capacity, strategically, in favor of its affiliates (or for the disadvantage of its competitors). Currently, NSW stakeholders assert that specific portions of AGLGN's system remain substantially underutilized. There has been no finding specific to this claim, in contradiction to Section 5 of the *Code*. A public register of spare capacity is required. Prospective users and users considering making investments that would increase their usage of gas can then know whether or not the gas service they seek would be available or whether pipe investments would have to be made.

E. Regulate Capital Contributions

Strictly regulating the type and size of capital contributions would help to prevent AGLGN from engaging in price discrimination and from evading price regulation controls. On such issues, the *Code* is weak and potentially anti-competitive, as it explicitly allows the monopoly pipeline to collect more than its costs from a customer, without transparent criteria

for doing so. Resolution of the customer contribution issue cannot be left to arbitration, as it is a generic regulatory issue with wide competitive, tariff and policy implications.

F. Summary

If a common thread runs through this section (and this paper in general), it pertains to two problems. First, genuine confusion appears to exist in NSW regarding which agency should deal with AGLGN's hindrance of competition. Second, IPART appears to want to avoid any additional cost pertaining to the type of regulatory scrutiny that would prevent such problems, regardless of the consequences for customers, for competition and for a more effective regulatory process with less unresolved conflict over basic issues. Other experienced gas regulators (in the UK and the US) have found that fostering open access gas competition requires either (1) vertical dis-integration (like in the UK) or (2) a far more detailed, systematic and transparent scrutiny of costs and regulated prices than IPART has undertaken. Inevitably, greater scrutiny of AGLGN's costs or price model will incur greater regulatory costs. We submit, however, that the benefits of more transparent regulation, particularly of the light-handed variety, will far outweigh those costs.

Our overriding comment is that "Cat and Mouse" regulation is singularly ineffective in ensuring gas supply competition to NSW. Genuine gas supply competition will arrive in NSW only if the concept of light-handed regulation does not imply a "light" approach to detailed and transparent investigations into AGLGN's actions and the formulation of its prices.

Appendix B. Rocks on the Road to Effective Regulation

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Rocks on the Road to Effective Regulation: The Necessary Elements of Sound Energy Regulation

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Rocks on the Road to Effective Regulation:

The Necessary Elements of Sound Energy Regulation¹

by

Jeff D. Makhholm, Senior Vice President

I. INTRODUCTION

This is a difficult time to create new regulatory institutions, particularly for the energy sector. Unlike the 1970s, when a great deal of work was devoted to the institution of regulation and its economic performance, the 1990s have progressed as a decade of *deregulation*. Both in the gas and electricity industries, emphasis has fallen on how to liberate regulated—but potentially competitive—markets and employ “light-handed,” streamlined regulation for what remains.² To policy makers in some countries (New Zealand, for example), regulation is thought to be a virtual anachronism—a wasteful and inefficient institution that does as much to harm the efficiency of an industry than help it.

There is some truth to such notions. That is, great merit lies in efforts to liberate markets and streamline regulation in the pursuit of economic efficiency. Nevertheless, success in regulating such innovative markets is a most demanding task. Light-handed regulation can be more efficient than traditional utility regulation, but it requires tight rules in accounting,

¹ This paper was presented at the Brazil-U.S. Aspen Global Forum in December 1996.

² Light-handed regulation refers mainly to price cap regulatory regimes, which allow for more infrequent basic cost examinations and may contain more flexible tariff rules for dealing with particular customer classes. Such regulation is supposed to encourage more efficient behavior on the part of regulated firms. Light-handed regulation is often discussed in contrast to “traditional, cost-plus” regulation, where frequent tariff-setting cases and rigid rules for pricing are often believed (often erroneously) to dampen such efficiency incentives.

administrative procedures, law and judicial foundation. Unregulated energy commodity markets require clear barriers between them and their regulated complements—in addition to antimonopoly laws with teeth.

Privatization and deregulation are exciting tasks of high visibility. Perhaps less so is the job of creating effective and lasting regulatory institutions—without which the high visibility jobs of privatization and deregulation will fail to achieve their potential. Telling examples existing of such failures in one or more aspects of the creation of regulators. I will examine these failures by contrasting experiences in three different energy markets: the UK, Argentina and Mexico. All three are dealing with new regulatory institutions (*i.e.*, in the last 10 years), and they all display different chances for future success in promoting efficiency in their energy markets. Other countries can draw lessons from these experiences as they create regulators for their own privatized businesses.

The plan of this paper is as follows. First, I will deal with the necessary elements of regulatory regimes that are essential prerequisites to pursuing light-handed regulation (or the deregulation of energy commodity markets). Second, I will discuss the mechanisms that prevent the growth of harmful coalitions that obstruct the efficient operation of markets and/or prevent regulators from pursuing the long-term public interest. Third, I deal with basic regulatory issue of setting permissible regulated revenues—an issue that confounds some new regulatory regimes, damages the regulators' effectiveness and alarms capital holders as well.

As countries look toward the privatization of the elements of energy infrastructures, efforts to prevent problems in these areas will signal to potential investors a knowledge of—and desire to avoid—the problems of loosely-defined regulatory regimes. Investor confidence, and greater privatization success, will be the result.

II. NECESSARY ELEMENTS OF REGULATORY REGIMES

Certain basic elements form the foundation of sound regulatory regimes anywhere. They are (1) strong primary legislation; (2) credible and comprehensive administrative procedures for making regulatory rules and adjudicating disputes; (3) accounting regulation;

and (4) clear pathways for reliable judicial review of regulatory decisions. Some of these elements restrict regulated companies—others restrict the regulators themselves.

A. Regulatory Legislation

Regulatory policies should be part of primary law (i.e., as the result of legislative action and not executive decree). Primary law is the product of a deliberative legislative process, which is more likely to reflect the public interest as opposed to a few special interests. Further, primary law is harder and slower to change, so it provides greater certainty.

Such legislation should specify a regulatory body independent from the executive with specific duties and information-gathering functions specific to the industry. An independent regulatory body, capable of making long-term commitments and demonstrating strong rules for its actions, is needed for long-term investment in the sector on a commercial level. Without strong laws that define such a regulatory body, investment is not likely to be efficient and effective and the ability of regulators to act in the short-term interests of the executive administration are great. The World Bank (among the other multilateral aid agencies) has been a consistent supporter of independent regulatory bodies in those countries where it has had an important role in facilitating energy privatization.

In some countries (for example those with a strong and independent judiciary and a history of private utility development) industry regulation is increasing tending toward the light-handed price cap regulation in a desire to promote efficiency. Nevertheless, well-defined light-handed regimes require an exacting constitutional, legal, accounting and procedural foundation. In other words, efficient light-handed regulation requires a complete regulatory specification rooted in primary law as detailed as those supported by the World Bank in the recently restructured pipeline industries of Argentina and Mexico, for example.³

³ In both countries, the World Bank supported primary legislation and a detailed regulatory law, including specifications for regulatory independence, the formulation of tariffs, accounting standards and judicial appeal.

B. Administrative Procedures

One of the principal methods for ensuring regulatory predictability (upon which the ability to raise capital on reasonable terms depends) is to require regulatory decisions to comply with strict procedural rules. The goal of such procedures is to ensure that regulatory decisions possess a high degree of legitimacy and predictability. Such is achieved by making the regulatory decision-making process highly transparent and open to the viewpoints of potentially opposing interest groups. Such procedures dictate that: (1) regulators make decisions on the basis of publicly-available evidence; (2) regulated companies and users have a right to be heard; and (3) there must be a clear path of appeal to judicial authority.

The actual form of these procedural rules depends on underlying local legal codes and practices. Nevertheless, predictable regulatory or tariff-making practices are unlikely without a clear set of administrative rules that bind the way that the independent regulators conduct their business. In the energy industry reforms in Argentina and Mexico, administrative procedures are already part of the administrative law of both countries (although, admittedly, the specific Acts were not written with regulation in mind). The U.S. 1946 Administrative Procedures Act (the general model for the others) is an effective model—requiring regulators to hold hearings, warn participants of impending rule changes, allow participation in regulatory proceedings from the affected parties and accept evidence (i.e., the elements of “due process” in the administration of regulation). Because that act constrains the actions of regulators, it heightens the level of regulatory predictability and the value of regulatory commitment.

C. Accounting Regulation

Effective regulation requires that regulators define the consistent and sustainable accounting procedures to be used by regulated companies. The early history of regulation in the U.S. was characterized by notorious accounting abuses, including overstated expenses, unverifiable investments in plant and equipment, a lack of separation between utility and non-utility businesses and overcapitalization.⁴ Such abuses were effectively ended with the

⁴ See: Phillips, Charles F. Jr., *The Regulation of Public Utilities*, Public Utilities Reports, 1993, pages 216-217, (“Phillips”).

adoption by the federal government in 1938 of the Uniform System of Accounts. Some regulatory regimes today exhibit the same kind of accounting abuses characterized in the U.S. in that earlier era (the UK notably). The goals of good regulation are frustrated without the regulator's ability to periodically assess costs because of the lack of detailed and reliable figures from agreed accounting sources.

Regulatory accounts exist separately from statutory (*i.e.*, accounts for investors) or tax accounts primarily because regulators require much more detailed cost information to oversee the efficacy and fairness of tariff calculations (among other reasons).⁵ Taxing authorities, by contrast, need only much more aggregated accounting information. Without a detailed set of accounts, however, regulators might be unable to prevent pricing mistakes or abuses by the company, such as undue cross subsidies between customers, illicit affiliate transactions or the subsidization of unregulated subsidiaries.

Regulatory accounts also exist separate from statutory and tax accounts in order to facilitate various government policies. For example, many nations have tax laws which allow businesses to use accelerated depreciation to postpone their tax burden. However, regulators typically do not allow the use of accelerated depreciation in setting prices (because of the consequent increase in near-term costs). Similarly, regulators may want to shield consumers from certain types of cost shocks by using deferral and amortization to spread costs over many years.

Regulatory accounts perform the following functions, among others:⁶

- Regulation of accounts ultimately enforces uniformity and consistency across companies in the reporting of revenues, investments, depreciation and operating costs.
- Regulatory accounts—of a more detailed nature than statutory or tax accounts dictate—are needed to distinguish between expenditures that should be charged to capital and those that should be charged to income.

⁵ *Statutory* accounts are required by law to communicate values to investors and creditors. *Tax* accounts are required to form the basis for income, excise or other taxes. *Regulatory* accounts are generally used as the basis of cost-based regulated pricing.

⁶ See: Phillips, pages 216-217.

- Since companies that provide regulated services are usually entitled to a market return on a fair valuation of their property, an accurate statement of a regulated company's property account is most important.
- Utility businesses must be separated from non-utility businesses.
- Regulatory accounts aid regulators in evaluating the reasonableness of prices and in answering complaints of price discrimination.

There is a very clear difference in the character of regulation in the presence—or absence—of clear accounting rules. For example, strict accounting standards (*i.e.*, the Uniform System of Accounts) rarely leave U.S. energy utilities and their regulators in major dispute over basic financial issues (like profitability, depreciation expenses or the admissibility of particular costs). In the UK, however, a major component of the reviews of British Gas conducted in recent years by both Ofgas (the gas regulatory body) and the Monopolies and Mergers Commission concern basic accounting and finance items. There is still (more than ten years after privatization) official confusion in the UK whether British Gas's rate of profits on its capital stock or whether depreciation should be allowed on billions of pounds sterling of transmission assets.⁷ Such confusion would not be possible with a uniform accounting system had been mandated in the UK upon privatization. Other countries must try to avoid the UK's experience in this respect.⁸

D. Judicial Review

The functioning of an independent and respected judiciary—with the power to enforce its decisions even in the face of executive branch opposition—is widely considered a critical component of a credible regulatory system (and hence a viable energy sector). Countries that

⁷ *The Economist* has thus referred to UK regulatory accounting as a “fiddly bit of guesswork.” (See: “Don’t you just love being in control?” *The Economist*, May 18th, 1996.)

⁸ In contrast is Mexico's new gas industry regulator, the CRE, who issued a Directive in June 1996 (two months after its new tariff Directive) dealing with detailed accounting standards that would apply to all of the regulated gas transport and distribution entities in the country.

lack a well functioning judiciary will face problems in creating effective regulatory structures or attracting private participation and investment.⁹

Effective limits on regulatory authority in systems with well functioning regimes comes from the judiciary. In both Canada and the U.S., the fundamental legal limitations on the ability of regulators to take actions that damage the holdings of utility investors (in some way or another) come from well known Supreme Court decisions. The Courts in both countries have found that the property rights of investors in regulated companies require strict regulatory attention to invested capital.¹⁰ In both countries, even today, normal utility tariff reviews (as well as substantial changes in regulatory rules) reference these decades-old judicial precedents—evidence of the effective control or regulatory discretion by judicial authority.

E. Summary: Basic Regulation Needs Strong Basic Rules

It is difficult to motivate large capital investments for use in immobile energy infrastructure industries where the prospect of earning compensatory profits depends solely or substantially on the actions of regulatory bodies. Regulated profits depend on the detailed and often tortuous job of identifying costs, transforming permissible revenues into consumers' prices and collecting those revenues from consumers. Regulators have innumerable ways—if they are bent on so doing—of denying regulated companies the ability to recoup legitimate and expected profits. Primary law, administrative procedures, accounting rules and judicial review are the most important features that allow regulators to exercise their jurisdiction over the efficient operation and expansion of regulated firms without damaging their ability to raise capital. These elements are most important for other countries as they look to establish their own regulators as a part of successful privatization.

⁹ See: Levy, B., and Spiller, P. T., "The Institutional Foundations of Regulatory Commitment: A Comparative Analysis of Telecommunications Regulation," *Journal of Law, Economics, & Organization*, October 1994, p. 210.

¹⁰ In the United States, these principles were confirmed by the Supreme Court in *Federal Power Commission v. Hope Natural Gas* (1944). In Canada, the Supreme Court confirmed similar principles in *British Columbia Electric Railway v. Public Utilities Commission of British Columbia* (1961).

III. PREVENTING THE FORMATION OF NARROW COALITIONS

In this section, I deal with issues of *keeping* regulators independent in the pursuit of the public interest, even with the existence of basic regulatory rules.

A. Preventing Harmful Vertical or Horizontal Combinations or Restraints¹¹

The basic objective in considering different options of economic regulation is *economic efficiency*.¹² It should be taken as given that: (1) the primary goal of regulation is to promote the public interest; and (2) other things being equal, it is in the public interest to make a nation's economy more efficient.¹³ Part of a regulator's job should also be to assure that the industry it regulates does not form combinations with other businesses that damage competition in some other markets. In other words, it is a responsibility of regulators to prevent "contracts or conspiracies in restraint of trade" that serve to reduce output, lower service quality and/or raise prices to consumers.

In principle, there are two ways that industry participants can act to "restrain trade:"

1. Horizontal combinations. These could be between different carriers that now compete with one another (like electricity transmission and gas transportation);
2. Vertical combinations. These could be the vertical combination between gas transmission and gas commodity trading. For example, a vertical restraint can occur when a gas shipper has an interest in a pipeline and that pipeline then denies access on equal terms to other firms competing with the shipper.

¹¹ Governments regulate businesses for many different reasons. Among some referenced in the economic literature are: (1) maximization of political support for regulators; (2) raising of entry barriers for potential competitors to protect industry incumbents; (3) provision of cross subsidies to certain classes of customers; and (4) general notions of fairness. (See Theodore E. Keeler, *Oils, Freight and Public Policy*, The Brookings Institution, 1983, page 66-67). While many of these various regulatory objectives are no doubt real in many areas of the world, they might be characterized as "bad" regulation. They do not reflect the key efficiency objective I discuss in this paper.

¹² For a discussion of the decision to regulate, see Stephen Breyer *Regulation and its Reform* (Cambridge: Harvard University Press, 1982), especially chapter one, "Typical Justifications for Regulation," pp. 15 - 36.

¹³ Defining "public interest" with precision is always problematic, even in mature and stable democracies. However, the core idea of advancing the "public" as opposed to "private" or "special" interest is the pursuit of policies which a well-informed electorate would support under ideal conditions.

The regulatory body should have the specialized knowledge to deal with these problems quickly in the first instance. Ultimately, however, there must be effective anti-monopoly legislation to give legitimacy (and to set the standard) for regulatory decisions in this area.

B. Safety Regulation

A primary and traditional role for regulation is to ensure safety, both personal and environmental, by specifying and enforcing safety (and environmental) regulations. The two principal aspects of this function are determining appropriate safety standards and inspecting to ensure that safety standards are met.

There is a choice available to other governments concerning whether to have energy regulatory agencies become involved in such issues. The desirability and potential effectiveness of new regulations designed to alleviate these potential problems depends to a considerable degree on: (1) the reliability of legal system in assessing compensation for injuries; (2) the nature of the “worker’s compensation” system—that is, the extent to which workers can bring suit against their employers; (3) the probabilistic nature and overall size of the potential injury; and (4) the transactions cost associated with regulations designed to reduce the potential for injury.

Apart from the inherent cost and potential inefficiency of regulations themselves, it is important to weigh government safety regulations against the possible tendency of these regulations to assign property rights in an undesirable way. In other words, in trying to facilitate efficient solutions to problems of potential worker, user or community injury, the government should try to avoid giving property rights—and therefore a potential profit—to government safety inspectors.

Worker and community safety can be dealt with in the following ways.

1. Worker safety

In competitive markets, where workers and employers are well-informed about the risk of the work place, a firm establishes the efficient level of safety by weighing the cost of additional safety measures against the cost of accidents, lost productivity and damages paid for

worker injuries. In practice, however, information is limited and the systems for compensating workers for injuries—the courts—are not without their own inefficiencies.

Worker's compensation laws, depending on their applicability to the privatized industries and their provisions in general, may be able to furnish an efficient level of worker safety and thereby to avoid unnecessary appeal to regulators or the courts. When countries create independent regulatory bodies, staffed with industry experts, those bodies should review worker's compensation laws.

2. Community (and Environmental) Safety

General safety inspections of rights of way and other assets may efficiently be delegated to third-party insurance carriers if a market exists for long-term residual value insurance. The principal function of the regulatory agency would then be to require filing of the third-party (*i.e.*, non-associated) insurance documents. The regulatory authority would simply “inspect” that the appropriate private insurance documents have been filed.

C. Dispute Resolution

In market economies, disputes frequently arise between different players in a given market. For example, a seller may have trouble collecting payment from a buyer. Or, a buyer may withhold payment for goods he has received because he believes those goods to be of inferior quality. Markets will not function efficiently if there is no ability to resolve such disputes quickly and with consistent and predictable results. For example, producers will be reluctant to deliver goods if they know their customers can use a slow and unpredictable legal system to avoid payment.

Typically, contract disputes are subject to the laws of a nation's civil and commercial codes. However, attempting to settle such disputes through the mainstream legal process raises significant transactions costs (including long time delays when court systems are crowded, as is usually the case) and may lead to inconsistent or unjust resolutions, especially when judges are unfamiliar with the functioning of the market in question. There are a number of types of disputes that the regulatory authority could assist in resolving without necessitating the time and expense of recourse to the courts.

1. Typical shipper/transporter arbitration would relate to contract disputes and claims for damages between regulated transport companies and users..
2. Transporter versus transporter carrier arbitration could also focus on the various contractual arrangements that would govern arrangements between different regulated networks.
3. Arbitration could be used for some antitrust issues, such as competitive access.

A well functioning regulatory body should thus be able to act, in part, as an agency for dispute resolution.

D. Maintaining Regulatory Independence

The need for government regulation of business is based on the theory of “market failure” (which is fairly well established in the economics literature as markets that fail in predictable and systematic ways). Less well known, however, is what might be called the “theory of government failure”—where *government* actions are prone to failure in predictable and systematic ways.¹⁴ In designing regulatory regimes, it is therefore useful for policy makers to bear in mind the potential for “government failure” in designing regulatory institutions.

The process by which the government engages in pervasive intervention in the operation of a market is at best an imperfect process. Anything that can aid the regulator in his job must be considered as a benefit. Three considerations to bear in mind are:

- the firm is a self-interested decision maker; a regulated firm will use its private information in the way most advantageous to the firm;
- the regulator cannot know with certainty the firm’s average costs;
- regulatory controls may have unintended consequences.

For these reasons, much care must be given to the design of the regulatory body.

¹⁴ or an excellent discussion of “government failure,” see Wolf, Charles Jr. *Markets or Governments* (Cambridge: MIT Press, 1993), especially chapter four “Nonmarket Failure: Types, Sources, and Mechanisms.” Wolf argues that in proposing *nonmarket* solutions to *market* problems, policy makers frequently have unrealistically high expectations of the ability of governments to correct market failure or to redress distributional inequities; as a result, government policies not infrequently incur costs that outweigh their benefits.

a. The Regulator Should Be Independent

There are two compelling reasons to establish an *independent* body to perform energy regulatory functions.

- First, there are questions of market power, safety and dispute resolution that can be provided efficiently by a disinterested regulatory body.
- Second, it is important to establish an authority that is both independent in its operation of the executive branch of government and able to take an unbiased and detached view in any disputes that may arise between privatized energy companies and the Government.¹⁵

Overlaying these duties should be the duty to look principally to the long term well being of the public. The independent regulatory body should avoid any regulations that create industry barriers to the workings of the competitive market or that create property rights for the profit of agents of the government, privatized energy companies or itself.

b. Regulation Should Be Kept at a Minimum

The experience of many countries has shown that government regulation is often costly and inefficient. Regulators often fail spectacularly to achieve their public interest mandate and often enough cripple the industries they are designed to oversee.

Regulators often lose sight of the public interest and form either explicit or tacit coalitions with either the regulated entity, its competitors or some other representative (including elected officials) with a narrower interest. As a result, government regulation should be imposed only when there is a strong justification, and it should be designed in such a way as to minimize the potential for these coalitions forming in the future.

Considerable effort should go to creating *private* institutions to perform economic and safety regulation functions that are otherwise candidates for a regulatory authority. A reliance on the judicious use of self-regulatory and market methods comes both from the literature on

¹⁵ The decisions of the independent regulatory body should not be subject to approval or veto by the Executive power (except through appeal of regulatory decisions to the courts).

preventing the formation of coalitions between regulators and various narrow interest groups and experience from the U.S. in the regulation of railroads, securities and other industries.¹⁶

c. Reliance on Independent Experts

Although it may not be possible to design collusion-proof regulatory agencies, the more modest goal of collusion-*resistant* agencies appears attainable if careful advance work takes account of the lessons we have learned from failed regulatory experiences elsewhere.

One way to limit this collusion is to use independent consultants to perform inspections (*i.e.*, third-party consultants with solid reputations, each of whom is engaged on an infrequent basis). Another useful step is to make the regulatory authority subject to occasional oversight through an independent review.

Such oversight raises the risk, though, that the regulated firms become overly politicized—perhaps by elected officials. There are at least three ways to improve this monitoring process.

1. Employ independent reviews of regulatory agency performance by *nonpolitical* organizations.
2. Elected officials should change their oversight responsibilities from time to time so that they do not linger long enough to form the coalitions with regulators that would erode the public interest.
3. The regulator should have administrative procedures which guarantee due process to affected parties.

¹⁶ The literature on the formation of coalitions between regulators and narrow interests groups includes: Tirole, J., "Hierarchies and Bureaucracies: On the Role of Collusion in Organizations," *Journal of Law, Economics, & Organization*, Fall 1986, pp. 182-187; and Laffont, J-J, and Tirole, J. "The Politics of Government Decision Making: Regulatory Institutions," *Journal of Law, Economics, & Organization*, Spring 1990, pp. 5, 26. A description of the contribution of John Landis (the first head of the Securities and Exchange Commission in the U.S.) to the practice of streamlined regulatory methods—including self-regulation, standardization of information and quick, injunctive relief—can be found in: McCraw, T. K., *Profits of Regulation* (Cambridge: Harvard University Press, 1984), Ch. 5.

Perhaps the best way, however, to reduce the risk of collusion with the regulated firms or political officials is simply to keep regulation at a minimum. The regulator should seek to conduct speedy hearings and to rely on the private sector to set standards and resolve disputes.

IV. A BASIC REGULATORY PROBLEM: PERMISSIBLE REVENUES

A well defined and structured regulatory agency can still have great difficulties when it comes to setting prices. Recent events in both the U.S. and UK show that when regulators decide to look to the future for projected cost information (either for the company in question or for the hypothetical costs of an efficient company), conflict between regulators and the companies they regulate can explode.¹⁷ The contention generally surrounds whether regulators can substitute their own cost estimates as a base for tariffs instead of a company's actual costs. The issue is arising not just in the U.S. and UK—arguments over the source of permissible revenues have also surfaced in Argentina and Mexico.

A. Traditional Permissible Revenues and the “Cash Flow” Model

Standard methods for calculating permissible revenues sum actual operating expenditures, applicable taxes, depreciation and the opportunity cost of existing capital. Such methods are widely employed by the world's privately-owned and regulated energy companies.

The so-called “cash flow” model for determining permissible revenues dictates that only future *cash* capital expenditures are relevant from an economic and regulatory perspective (and that the payback of existing capital expenditures is relatively unimportant—an economic “bygone”). That is, the cash flow method treats the value of the current capital stock as a bygone to be replaced by the present discounted value of forecasts of future cash expenditures. There appears to be spreading interest in the cash flow method for determining permissible

¹⁷ The current dispute before the Federal Communications Commission between AT&T and the local Bell Operating Companies (BOCs) over the FCC's new access pricing regulations deal in large part with this question (see: Alfred E. Kahn, “Opening Up Local Phone Companies,” Letter to the Editor, *The Wall Street Journal*, November 29, 1996, page A7). The dispute is also at the center of the current dispute between British Gas and Ofgas currently before the UK Monopolies and Mergers Commission (a dispute that involves more than £2 billion in prospective British Gas revenues).

revenues, particularly in the UK.. Such a perspective may well be inconsistent with both private capital market requirements and the effective administration of regulation.¹⁸

Most investors would probably take issue with the view that past investments can be substantially ignored for regulatory purposes—even though it might be a useful model for government-owned enterprises. That is, the cash flow perspective may be applicable for publicly-owned utilities that are financed by governments. Governments that own natural monopolies may consider past investments “sunk” and not feel compelled to structure future charges in a way that explicitly recovers the costs of past investments.

The same does not apply for regulated monopolies financed with *private* capital. Governments can compel capital to be available for public projects. But governments cannot *compel* the provision of private capital—they must *attract it* from competitive capital markets that have many investment options other than regulated businesses. The recovery of “sunk” costs is thus profoundly important for those private investors who provided the funds. Private investors in regulated monopoly assets have no other option than to recoup such investments in regulated prices. Regulators cannot compel the provision of capital on reasonable (*i.e.*, non-speculative) terms if they do not give today’s investors the assurance that next year their capital investment will not be considered a bygone (to be ignored as a component of regulated prices).

B. Creating Conflict Over the Costs Used to Set Tariffs

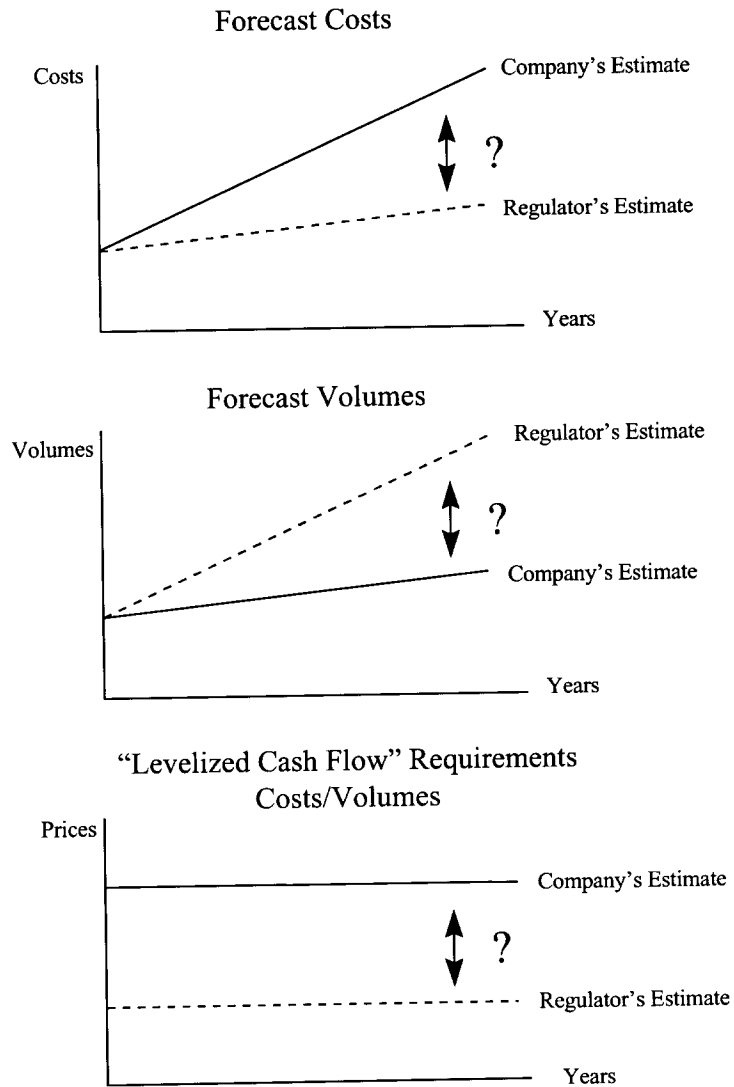
The conflict over the cash flow model stems from its lack of objectivity in measuring costs. Since the model is based on forecasts (or hypothetical “efficient firm” costs), costing is generally not an empirical exercise. Thus, a regulated company has every incentive to overstate costs, and the regulator has no defense against this except to provide its own forecasts.

Figure 1 presents a picture of how the attempt to set prices based on forecasts of costs will inevitably lead to irresolvable fights over the level of prices (as experience in the U.S. and UK recently shows). The company will almost certainly want to forecast high costs and low

¹⁸ Such a perspective on permissible revenues would probably also violate the law in the United States and Canada, where the Supreme Courts in both countries have found that the property rights of investors in regulated companies require strict regulatory attention to invested capital. See the cases referenced in footnote 10, above.

volumes. Knowing that this desire exists, a regulator will almost certainly disbelieve (to some extent) the company's estimates and obtain its own (with lower costs and higher volumes). Since both sets of figures are based on essentially unverifiable costs and volumes, there is no objective standard by which to measure the validity of either. The result is a band of irresoluble contention.

Figure 1
Forecasts Cause Irresoluble Uncertainty



As a pricing model, the “cash flow” exercise does not lead to either efficient prices or reasonable regulation.

- The cash flow approach has nothing to do with the price structure, only the price level.
- Contention explodes because today’s prices are directly affected by the long-range forecasts of costs and volumes, and there is no objective standard by which to measure those forecasts.
- Regulators could make better and more objective prices on the basis of replacement or reproduction costs that reflect valuations of today’s capital without necessitating such forecasts of costs.
- It makes prices the result of a highly subjective and uncertain process.

Regulation involves inevitable friction between regulators and the companies they control. Rules for accounting, administration and appeal are essential in helping to minimize such friction by enhancing regulatory predictability. The use of forecasts or hypothetical costs for the purpose of setting prices—to the extent that such practices encourage a band of irresolvable contention—does not appear a wise regulatory practice.

V. PROBLEMS WITH SOME NEW REGULATORY REGIMES

As other countries consider the types of regulatory structures for privatized energy providers, there are a number of cases to consider. These document regional or international successes or failures in various aspects of the regulation of energy businesses. There are three that provide useful contrasts. They are:

- Regulation of Electricity and Gas in the UK. Both electricity and gas infrastructures were privatized in the last 10 years—with considerable fanfare regarding new regulatory structures (particularly “price cap” regulation). Since then, regulation in the UK has demonstrated certain weaknesses regarding both regulatory commitment, independence, accounting and the rules for creating prices.
- Gas Regulation in Argentina. Following a highly-successful privatization of Gas del Estado at the end of 1992, the regulation of the new gas industry’s 10 private participants has exhibited mixed results. As ENARGAS (the gas regulatory body) and the companies approach their first 5-year tariff review since privatization, there is considerable uncertainty regarding what it will entail and how it will affect prices.

- Gas Regulation in Mexico. In a little over one year, Mexico has established in impressive series of primary regulatory legislation and detailed regulatory directives that bode well for private industry development in gas imports and gas distribution. Unlike the others, it has established firm precedents for accounting regulation.

A. UK (Age: up to 10)

A record of regulatory instability appears in the relationships between either Ofgas and British Gas or Offer (the UK electricity regulator) and the National Grid Company (NGC, the transmission company) or the Regional Electric Companies (the RECs). A large part of this instability stems from the philosophy under which UK regulators operate and the procedures they use to set prices. As stated by the current Director General of Offer:

...the UK regulator has more discretion and less need to reveal the basis of his decisions than does his U.S. counterpart. The U.S. tradition is to place all evidence and reasoning in the public record. In the UK, there is less pressure for due process. The UK regulator is deemed to be a person to whom public policy may be safely delegated, subject only to judicial review on the question of whether his actions are legitimate in terms of the act. In the UK, neither government nor regulators have given detailed reasons for their decisions....¹⁹

This philosophy is combined in the UK with tariff setting procedures that (1) lack objective and consistent accounting rules and (2) base permissible revenues on uncertain forecasts of capital and operating costs (*i.e.*, the “cash flow” model). The result is that these regulators, despite their hard work in trying to institute reform, continue to surprise the companies they regulate (and their investors) by changing almost at whim the formulas that determine allowable prices.

In the case of prices for NGC or the RECs, the lack of unambiguous regulatory precedents leaves the companies exposed to decisions of Offer (the electricity regulatory body) to change the value of their regulatory asset base and its allowances for future operating costs (largely because these costs are based on forecasts, not measurable expenditures). In a surprise move in April 1995, Offer “re-opened” the price cap regime of the RECs only part-way into

¹⁹ Beesley, M. E., and Littlechild, S. C., “The Regulation of Privatized Monopolies in the United Kingdom.” *The Rand Journal of Economics*, Vol. 20, No. 3 (August 1989), page 461.

their five year price cap period, lowering their prices. Again in August 1996, Offer published a consultation document that specified an unanticipated change in the asset base and future allowable operating costs for NGC that will lead to substantial price cuts.

In the case of British Gas, Ofgas published a draft series of proposals for the next five-year price cap period for TransCo, the regulated pipeline subsidiary, that had the effect of abandoning a 1993 MMC decision on calculating permissible revenues and effectively removed approximately £3 billion from the company's asset base.²⁰ As a result, BG's stock price fell approximately 24 percent in two days and its debt securities were downgraded three steps by Standard & Poor's, the debt rating agency. Regulatory commitment is not credible when regulators can surprise investors in the companies under their jurisdiction to this degree in what should be an otherwise unremarkable quinquennial tariff case.

The circumstances involve complicated charges and counter charges on the part of the companies and their regulators. However, the issues are complicated in substantial part because the UK has no reliable regulatory accounting system and uses essentially unknowable determinations of future costs in setting permissible revenues. This is a very uncertain environment for the investors in these companies.²¹

B. Argentina (Age: 3)

The role and structure of ENARGAS (the Argentina gas regulatory agency) was defined in 1992. Most of the provisions in Law 24.076 are consistent with the language in the regulatory laws seen in the U.S. or Canada.²² Nevertheless, there are elements of effective regulatory institutions that are not yet in place (or clearly defined) for ENARGAS.

²⁰ A September revision from Ofgas brought that number down to approximately £2 billion.

²¹ One circumstance that perhaps prevents such practices from receiving more intense capital market scrutiny is that neither British Gas nor the electric companies have looked to external sources for capital funding since privatization (having been privatized with sufficient cash income to prevent the need).

²² Chapter 1, Part X (Sections 50 through 64) defines the duties of the Regulatory Entity; Part XI (Sections 65-70) deals with jurisdictional processes and control and Part XII (Section 71-73) deals with infringements and penalties.

The law contains detailed provisions for: (1) the structure, duties and financing of the regulatory agency; (2) administrative procedures and judicial review; and (3) infringements and penalties. As it is drafted, the law contains many of the structural provisions that are characteristic of highly credible regulatory agencies. These provisions include the following:

- A reasonably independent administrative panel to monitor certain private gas activities, including:
 - compliance with and changes to the franchise operating rules and investment plans,
 - potentially anti-competitive behavior,
 - dispute resolution, and
 - health and safety regulations;
- A staff that is small and technically competent;
- Legislative involvement in both the approval and the possible dismissal of regulators appointed by the executive;
- Requirements to abide by a “Law of Administrative Proceedings;” and
- Specification of the route of appeal (to the National Court of Appeals).
- A method for dealing with the continued high levels of concentration in the gas supply market (dominated by YPF, the privatized former state-owned oil and gas producer).

These are standard and useful structural requirements for regulators. Nevertheless, there are structural omissions in the law. These include: (1) uniform accounting conventions related to setting permissible revenues, determining prices at the five year reviews and tracking the financial performance of the industry; (2) specific administrative procedures for making new regulatory rules, deciding issues on the basis of evidence and resolving disputes; and (3) periodic external reviews of the regulators’ methods in setting prices and imposing penalties.

There are also problems of a lack of competitiveness in gas supply (separate from transport and distribution) that ENARGAS is not empowered to deal with effectively.²³

The regulations also contain some ambiguity regarding how the first quinquennial tariff review will be conducted. These factors are currently causing some worry on the part of both the 10 regulated gas companies in Argentina and ENARGAS regarding long-term regulatory price controls.

C. Mexico (Age: 1)

Mexico has just recently established a new energy regulatory agency, the CRE (Comision Reguladora de Energia). The CRE was formed in 1995, followed in rapid succession by a number of laws and directives dealing with the effective regulation of the energy sectors in Mexico. The recent events are as follows:

Important Dates in Mexican Energy Regulation

Date	Action by the Government or the CRE
October 1995	Formation of the CRE
November 1995	Signing of Comprehensive Regulatory Law by Mexican President Ernesto Zedillo
March 1996	CRE-Issued Directive on Tariff Formulas and Methods
June 1996	CRE-Issued Directive on Mandated Accounting Methods
December 1996	Implementation of New Tariffs (proposed)

²³ In the past few weeks in Argentina there has been a move in the Legislature to pass a law containing detailed regulations for gas prices. It is part of the reaction to what is seen by many in Argentina to be a missed opportunity to facilitate competition in gas production by restructuring YPF before its privatization.

The intent of the rapid introduction of regulatory, tariff and accounting systems is to encourage the participation of new private energy companies in the transport, distribution and importation of energy.²⁴ The regulations specify quinquennial tariff reviews, price cap regulation (meaning that prices are adjusted according to inflation, productivity measures and external effects on costs such as tax changes or regulator-mandated investments). In this way, Mexican tariff regulation has significant similarities to the regimes in the UK and Argentina—with the notable addition of accounting mandates for the companies under its jurisdiction (including, for example, Pemex Gas y Petroquímica Básica, the state-owned gas production and transportation company).

While these new regulatory rules have still to be tested, they are the most detailed and comprehensive of those of the three regulatory agencies examined here. Just like ENARGAS in Argentina will be tested by its first comprehensive quinquennial tariff review, however, the CRE is now being tested regarding whether it can oversee the development of private energy distribution franchises and the implementation of new prices. Already, however, there is considerable interest from outside Mexico (notably from regulated U.S. gas distributors—who did not participate in the Argentine gas privatizations) in acquiring regulated franchises there. It is highly likely that the greater familiarity and detail in regulatory laws has promoted this interest.

VI. CONCLUSIONS

Regulatory economics is concerned with the welfare of consumers of regulated services—that is, with maintaining the supply of high quality services at a low price. When dealing with long-lived investment in regulated assets, competitive capital markets will continue to provide capital at a reasonable price only if the reasonable demands of investors receive fair and predictable treatment. In maximizing consumers' welfare, there is often a trade-off between setting the most "efficient" prices and ensuring the continuing supply of low-cost capital to an ongoing business. In order to be a credible foundation for successful

²⁴ The Mexican Constitution requires that primary energy production remain within the hands of the State (which appears to be similar to recently changed Constitutional restrictions in Brazil).

privatization, regulators have to be successful both in satisfying the public's desire for low prices and fair treatment and investors requirements for a stable and predictable regime into which they invest.

The practices of new regulators in various countries may provide some guidance on some highly-visible issues for other countries as they look to structure their own regulatory institutions. If anything, recent events in the UK, including the current dispute between British Gas and Ofgas, demonstrate a need for greater specificity in the rules for setting prices—particularly concerning the measurement of costs and the ability of regulators to make credible advance commitments to price cap regimes. Early experience in Argentina shows that the goals of effective regulation can be partially frustrated if either: (1) the industry is not structured to prevent problems of market dominance before privatization; or (2) the regulator is not given sufficient tools to deal with market power issues that arise after privatization. While Mexico has the most detailed and well-defined energy regulatory regime of the three, it remains to be seen how effective the agency can be in a market that will continue to be dominated by constitutional state-owned energy monopolies. -

A message that comes from all three regulated markets, however, is that investors prize predictability in regulatory regimes. There is a trend exhibited by these regulators toward more detailed and well documented regulatory rules. If other countries can demonstrate to investors the most comprehensive foundation for reliable regulatory commitment (including the “necessary elements” of a regulatory structure that includes primary legislation, effective administrative procedures, specially-tailored accounting requirements, and credible judicial appeal routes), it bodes well for their privatization efforts.