

# Overview of the UK Regulatory Process

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## *Abstract*

Managed entry and price caps characterize the UK approach to regulation. A premium is placed on expediting the process--compared to the U.S. emphasis on due process, which enables a large number of stakeholders to intervene in the hearing process. Individual Director Generals head regulatory offices established for each utility sector. Electricity, natural gas, telecommunications, and water each have variants of RPI-X price caps. The election of a new Labor government resulted in changes, including excess profits taxes on firms and redesign of regulatory institutions. An Inter-departmental Review addressed the concerns raised by observers, while attempting to avoid the creation of new problems. An emphasis on increased accountability is likely, fostering more openness. The role of reviews also needs examination. A crucial element for the success of judicial oversight is the degree of separation between the decision-making process and the appeals process.

The sustainability of an effective regulatory process is dependent on public perceptions that cost savings are ultimately passed on to consumers--which raises some important incentives issues.

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# Overview of the UK Regulatory Process

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The United Kingdom's approach to utility privatisation and restructuring has been closely scrutinized by the rest of the world. Its unique style of regulatory reform can be described as one of *managed entry, with price caps* facilitating the transition to competition. The program privatised British Telecommunications, now BT, in 1984, and set up a duopoly structure in 1985, allowing Mercury to compete with it in the provision of telecom infrastructure and services. This structure remained in place for seven years until the limit on the number of telecom licenses was removed in 1991. British Gas plc was privatised as a vertically integrated monopoly gas supplier in 1986. The initial structure of the electricity industry consisted of a generation duopoly and the insulation of the twelve distribution companies from competition for a period of eight years.

The United States' approach to regulatory reform has a bias, at least in principle, toward competition. Academic scholarship and public policy support competition where possible and utilize regulation to safeguard consumer interests. This belief is buttressed by evidence from the deregulation experience with the transport and telecommunications industries. In the former industry, lower rates and efficiency gains characterize the effects of deregulation. In the latter, the divestiture of the AT&T integrated monopoly has generated unforeseen efficiency gains but at significant transition costs. The official preference for competition might be contrasted with the implementation of national laws, since the courts, state regulators, protected incumbents, and strong potential entrants (with their own protected markets) have managed to delay effective competition. For example, in telecommunications, inter-exchange carriers, local companies, cable television, spectrum-based suppliers, and fiber-based operators have not yet fulfilled the expectations of those promoting U.S. telecom reform.

Competition policies vary between the two nations, the common thread linking both regulatory experiences is the role of individuals in both the innovation and application of ideas. Thomas McCraw states: "Policy remains a work of man... Individual persons and particular ideas have mattered a great deal in regulatory history." Thus, the personalities and background of individuals have influenced regulatory policies in both countries.

## Regulatory Process

In addition to differences in approach to regulatory reform, the United Kingdom and the United States also differ with respect to regulatory process. The UK has tended to place a high value on expediting the

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regulatory process, while the US system emphasizes due process. In the early years, the UK regulatory process was largely closed -- bereft of hearings, intervenors, and lengthy appeals. The regulator and regulatee met to confer and negotiate over the prices and services that would be in the best interest of consumers; other parties had little direct input. The U.S. system, however, supports open negotiations, in which all interested and/or affected parties are encouraged to participate. These proceedings ensure due process. Involved parties may submit petitions and motions, file briefs, and appeal rulings. This approach is obviously very time-consuming and costly but provides important benefits as well.

The British approach to utility regulation has been deliberate in its attempt to avoid the pitfalls associated with traditional utility regulation. The design of the initial program incorporated three fundamental principles:

- i) rejection of rate-of-return regulation;
- ii) rejection of direct government control; and
- iii) rejection of monopoly as a permanent feature of the economic landscape.

These principles provided the basis for the birth of RPI-X price cap regulation: average price is allowed to increase at the same rate as the retail price index, less an X-factor, which accounts for technology changes and productivity improvements. First proposed in 1983 by Stephen Littlechild, RPI-X price-cap regulation is intended to protect consumers and to promote efficiency (cost-minimization) in production. In this role, RPI-X price cap regulation is the common regulatory instrument across all sectors in the UK: electricity, natural gas, telecommunications, and water/sewage.

Pollitt (1998) identified ten issues that have had to be addressed in the context of RPI-X regulation:

1. *The extent of the activities which need to be regulated.* Telecom price control initially covered all calls--now international calls are not regulated. Conversely, although prices in the power pool were not going to be regulated, in 1994/5 and 1995/6 price caps were imposed on bids because there was concern that the generators were exercising market power.
2. *Setting the value of X in the price cap.* Operating expenditures, capital expenditures financed from cash flows, and allowed returns are three elements that regulators take into account when determining the path of prices. Expected effectiveness of cost containment programs affects the first two, and estimates of industry risk affect the latter.
3. *Price rebalancing.* Prices to different customer groups and for different services bore an initial relationship--not necessarily reflecting cost differentials. Potential competitors generally argue that they are the target of predatory prices by the incumbent.
4. *Access pricing issues.* If the network is a natural monopoly, users must compensate the owner--but the price is highly contentious. Excessively high prices deter efficient entry while unduly low prices will discourage investment in the network.
5. *The regulation of quality.* Under price caps, the supplier may have an incentive to let quality deteriorate. UK regulators have developed incentive programs to maintain and enhance service quality.

6. *The length of the regulatory lag.* Regulators have had to establish review periods that are long enough to provide incentives for efficiency-enhancing activities.
7. *Information disclosure.* Access to documents by regulators and the public is another area of controversy. Investment plans, new service introductions, and financial performance data can be of strategic value to rivals--yet setting an appropriate X requires that regulators be informed. Furthermore, when companies end up spending less than planned, the regulator will check into the discrepancies.
8. *Regulatory discretion.* Rules, analyses, and judgements differ across sectors, with regulators having substantial discretion.
9. *The role of comparators.* Regulators have used yardsticks or benchmarks to establish the X's and set prices after a review period. The MMC concluded that a merger resulting in the loss of an observation had a present value of 50-250m pounds.
10. *Regulation and investment.* The capital budgets in business plans have implications for the X adjustments, as practiced in the UK. So regulatory prior approval and the monitoring of expenditures implies more intrusive involvement than the "theory" of price caps would suggest.

These ten issues represent just some of the areas that have been addressed in the process of creating new institutions and implementing new procedures. Other issues noted by Pollitt include industry structure, merger activity, and alleged abuses of market power.

One difference in the structure of regulation is the role of individual regulators rather than commissions. The innovative British program established an independent regulatory office *for each utility sector*.<sup>2</sup> A Director General (DG) heads each office and reports directly to the relevant Secretary of State. The DG is responsible for encouraging competition, protecting consumer interests, monitoring customer service obligations, and ensuring utilities adequate financial means to fulfill statutory duties. The privatisation statute contains the legal authority to regulate the industry and lists the DG's duties. The real power, however, to control a utility is found in its license. The Directors General and the Monopolies and Mergers Commission (MMC) review both the license terms and the price cap. The Director General and regulated firms at times disagree on license modifications and/or price cap resettings. If a firm believes it is being regulated unfairly, its principal recourse for appeal is through the MMC. The MMC, in theory, is powerful because of its review role; its functions, however, are limited because regulator and industry often negotiate on license and price cap revisions. Both want to avoid opening up *all* issues, which occurs under MMC intervention.

## **Electricity**

The privatisation of the electricity sector featured the dis-integration of the Central Electricity Generating Board into two fossil fuel generators (National Power and PowerGen) and the National Grid Company, which is responsible for the transmission network. The government privatised the Regional Electricity

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<sup>2</sup> These offices are non-ministerial government departments.

Boards as the Regional Electricity Companies (RECs), which have the responsibility for both distribution and supply. The Director General is responsible for monitoring the compliance of all parties with license provisions to generate, transmit, or supply electricity.

Currently, the generation stage of production is considered competitive, and therefore it is not subject to price cap regulation. Transmission prices are regulated by an RPI-X formula. The RECs' distribution prices are subject to RPI-X regulation, in which the revenue component (since 1996) is based on units (kwh) sold and number of customers.<sup>3</sup> In supply, price controls only apply to customers whose maximum demand is less than 100kW. Commercial and industrial customers utilize a competitive market for supply.

An electricity pool functions to coordinate trade between competitive generators and suppliers. Most electricity trading occurs through the pool, and generators submit bids on a daily basis (every half-hour) for running on the next day. The final pool price includes two additional components: a *capacity credit* to stimulate new plant investment and *uplift*, an increment that hedges against any forecasting errors and reflects transmission constraints--compensating firms that cannot be dispatched.

Presently, the most significant issue in the electricity sector is the transition to full competition in electricity supply (primarily billing and customer services) for domestic customers beginning in 1998. Competition already characterized the electricity market for commercial and industrial customers (with maximum demands exceeding 100kW). Customers may choose their own supplier from the REC or an unaffiliated generator (a second tier supplier). One additional issue that has consistently emerged in policy discussions is industry profitability. Since privatisation, investors have done very well. As a result, there has been public concern over the division of benefits. Following their election in 1997, the Labour government introduced a "windfall tax" on the profits of privatized utilities.

## Natural Gas

British Gas plc was privatised as a fully integrated monopoly in 1986. This privatisation occurred without any restructuring (due to the political timetable), and as result, the gas industry and its practices have been scrutinized more closely than any other regulated industry. Relations between the regulator and the industry have been strained, to say the least. In 1988, the Office of Fair Trading (OFT) referred British Gas to the MMC for its treatment of large-user customers. Although British Gas complied with the MMC's directives to publish price schedules and not to discriminate against customers on the basis of alternative fuel supply, the OFT found little evidence of increased competition by 1991. In 1992, the MMC recommended that British Gas be structurally separated into transport and supply divisions and its trading activities sold. The pattern of X factors was 2 (1987-92), 5 (1992-94), 4 (1994-97), 5 (for transportation 1994-97), 2 (1997-).

Currently, the regulated activities of the gas industry include the supply of gas to customers with annual consumption below 2500 therms and the transport/storage business. The supply of gas to customers with annual consumption above 2500 therms and the connection of new customers are unregulated. The current price cap formulas for the regulated activities have a tighter X-factor for non-gas costs and an added factor

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<sup>3</sup> Prior to 1996, the basis was average charge per unit of electricity distributed.

for energy efficiency work. In addition, the control only applies to prices for customers consuming less than 2500 therms per year. This change initiated rate rebalancing to account for the different average prices paid.

### **Telecommunications**

BT, formerly British Telecommunications, remains the primary, fully integrated supplier of telecommunications services in the UK. From its privatisation in 1984 until 1991, BT and Mercury were the duopoly providers of telecom services. Since 1991, the market has been open to competition. In addition to BT, the main players in the market are long distance operators (including Mercury). In 1994, the government licensed six additional companies, including Energis, to provide long distance service. Also, licenses have been extended to more than ninety cable franchises to provide voice telephony in addition to television services. The cable companies are the key competitors of BT at the local level.

BTs prices are subject to RPI-X price cap regulation, while other operators prices are unregulated. The price control consists of a tariff basket which restricts revenue-weighted increases in charges for a group of services, including line rentals and charges for local, national, and international calls. The X-factor moved from 3 to 4.5, to 6.25, to 7.5, and to 4.5 for 1984-89, 1989-91, 1991-93, 1993-97, and 1997-2001 respectively. Elements in the basket of services increased over the period and a number of other constraints were added (caps on exchange line rentals and low-use schemes) (Burns, 1993). Such ratcheting raises incentive issues. Aside from price controls, BTs activities are restricted by non-discriminatory provisions in its license that prohibit: cross-subsidization, predatory pricing, customer-specific discounts, and exclusive dealing.

Current issues in telecommunications include number portability, renumbering, and the removal of price caps for domestic services. Accompanying the latter is the associated issue of augmentation of the Director General's authority to ensure competition.

### **Water**

The restructuring of the water industry involved privatising the ten regional monopolies, with the introduction of no new players. The price control for water is a variant of the RPI-X formula and takes the form of a tariff basket. It includes a composite measure of the efficiency factor (X) and a special factor for the future investment needs of individual firms.

The major issue for the water/sewage industry is the need to finance environmental improvements. Infrastructure suffered from significant under-investment prior to privatisation. As a result, the regulator has allowed firms to increase bills of domestic customers by 40% since privatisation. Over 90% of domestic customers are not metered and pay in proportion to property taxes. A review of prices is scheduled to occur in 1999.

### **Forecasting the Future**

With the new Labor government, there exists the potential for change in the regulatory process. The President of the Board of Trade created Inter-departmental Review of the Regulation of the Utility Industries. As stated, its purpose was to ...see how the existing framework can be updated, modernized,

and refreshed under the guiding principles of transparency, consistency, and predictability, with enhanced accountability.

In assessing regulatory performance, the UK system has both its supporters and detractors. Both sides, however, agree on the structural fault of the post-privatisation regulatory framework: *a lack of accountability and appropriate checks and balances in the decision-making process*. Regulators have little structured supervision, although technically they are responsible to Parliament. Their interpretations and judgements are largely unquestioned; therefore channels of regulatory accountability are weak. Although the possibility of judicial review (of regulatory decisions) exists, its protection is weak. Courts are not inclined to intervene in cases to judge the merits of a regulatory decision. Finally, the lack of procedural safeguards follows directly from the British tradition of closed negotiations. Regulators have consistently shielded crucial issues, such as the relationship of prices to actual costs and evaluations of whether a utility's behavior abuses its monopoly status, from the public domain. This lack of transparency has persisted throughout the UK post-privatisation era.

These weaknesses in the regulatory process, however, do not mean that it has not functioned well at times. In fact, it is only fair to state that in comparison to other countries, the UK regulatory system has performed well. Its success is directly attributable to the *quality* of the appointed regulators. Although the presence of quality regulators is beneficial to regulatory performance, the UK's current structure may not be conducive to the sustained development of good practice.

In the near future, the current inter-departmental review will no doubt elicit numerous and often conflicting calls for reform measures. George Yarrow (1997), Director of the Regulatory Policy Institute, warned of two potential dangers:

- i) unnecessary changes that compromise regulatory policy; and
- ii) missed opportunities to correct significant, systemic problems.

As mentioned previously, the UK system has performed admirably. The creation of incentives through RPI-X price cap regulation, the emphasis on the promotion of competition, and the efforts to separate the regulatory process from the political process are three important and positive features of this system. Unnecessary tinkering would diminish the regulatory effectiveness of these features. At the same time, the opportunity exists to address current problems. Some present public concerns really stem from decisions made during the early privatisation years. For example, two significant issues are whether or not regulators initially set easy performance targets and whether or not firms have utilized cash flows in a cost-effective manner.

In addressing these and other issues, the government has committed to the underlying principles of competition and regulatory independence. Interested parties have recommended a number of changes that seek to advance the above objectives:

- i) the replacement of single regulators with commissions;
- ii) the introduction of a profit-sharing element into price controls;
- iii) the merger of existing regulatory bodies to create super-regulators; and
- iv) the increased use of sector-specific agencies to attain environmental and social objectives.

Yarrows assessment of these ideas is that *i*) and *ii*) are not likely to do significant harm (or possibly good). His opinions on *iii*) and *iv*) are less favorable. For *iii*), the concentration of additional authority into one regulatory office provides pressure for closer political scrutiny and may sacrifice long-term independence. However, the gas and electricity offices will be merged in 1999. With regard to *iv*), these extra objectives add complexity to the process and may interfere with policy conduct and control.

The purpose of these recommendations is to ensure competition and regulatory independence *through enhanced accountability*. Two primary approaches are available to help mend this structural fault. The first, increased political supervision, is the less satisfactory choice. Its role in creating the problems associated with privatisation has not been forgotten. In addition, greater legislative oversight would likely encroach on regulatory independence over time. The second option, judicial oversight of the regulatory process, is more favorable but controversial. Yarrow asserts that such a body should provide oversight of *both* the competition authorities (primarily the Office of Fair Trading) and the regulatory offices. In addition, he contends that it should *only* handle appeals. Such a structure would serve several purposes:

- i*) to increase pressure on regulators to utilize the best evidence for decisions;
- ii*) to decrease utilities' regulatory risk by providing a more level playing field;
- iii*) to foster openness by ensuring parties that all relevant views have been heard; and
- iv*) to reduce the opportunity for decisions based primarily on interest group favoritism.

The crucial element for the success of judicial oversight is the degree of separation between the decision-making process and the appeals process.

In conclusion, Stelzer's (1991) observations are appropriate: *i*) structure matters; *ii*) competition matters; *iii*) people matter; *iv*) procedure matters; and *v*) profits matter. His first concern reflects the issue of entry conditions and market size. Second, competition is effective when the number of independent centers of initiative is large enough to create genuine rivalry. Third, the quality of regulation depends partly on the quality of individual regulators -- their technical skills, integrity; communication ability, and vision of technological trends. Fourth, regulatory procedures affect the way information is provided and how decisions are reached. Stelzer's final observation, regarding profits, warrants special attention. Excessive profits and a decline in the quality of service serve as lightning rods for intense political scrutiny. Sustainability of an effective regulatory process is dependent on public perceptions that cost savings are passed on to consumers.

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