BILLS COMMITTEE ON MASS TRANSIT RAILWAY BILL

Evidence Presented by

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REGULATORY FORMULAE

PURPOSE

Rothschild was appointed in May 1999 by MTR Corporation ("MTRC" or the "Corporation") specifically to assist the Corporation in preparing its constitutional framework in the lead up to the forthcoming privatisation. Rothschild has significant experience in privatisation, generally being recognised as a leader both in the UK and internationally. Specifically, in the UK, Rothschild has been intimately involved in the privatisation process for all the public service utilities (telecoms, gas, water, electricity and railway – all of these were regulated) and Simon Linnett, a Managing Director based in London, has played a leading role in all of these.

The Bills Committee on Mass Transit Railway Bill wants to consider the most suitable fare mechanism for the privatised Corporation. The most common structure of utility regulation adopted abroad is based on rate of return regulation and there has been some comment as to whether CPI–X based formula should be applied to MTRC on its privatisation. Simon Linnett will be submitting oral evidence to the Bills

Committee on Mass Transit Railway Bill on 10 December 1999. The purpose of this evidence is to investigate the origins of such regulation, its applicability and how it is gradually being reconsidered for businesses especially as they achieve maturity in the private sector.

For completeness, it should be emphasised that this evidence only relates to the component of regulation which is economic but it is important for any Government to feel confident that it has an appropriate balance of regulation: safety, standards and economic.

BACKGROUND AND ARGUMENT

1 UK regulation – its origins

All the UK public service industries displayed some common key characteristics at their privatisation:

- they came from a history of being run in the UK public sector, frequently with a strong tradition of maintaining employment throughout the working life of each employee;
- they all had elements which represented absolute monopolies; in the case of the railway, that element which was traditionally regulated – the infrastructure provider – was an absolute monopoly;

- they were sold as mature business whose business profiles were expected to change little after privatisation (but in telecoms and railways this has subsequently been proved false);
- they were all majority sold, and as regards the only one which was not sold close to 100% on day one (British Telecom plc), Government retained a shareholding largely because of constraint imposed by the capacity of the capital markets; and
- all had been capital constrained and regulation had to accommodate a change in their capital profile and capacity.

Regulation was therefore seen as necessary, as a surrogate for competition, to force the pace of change of these businesses into the private sector and to ensure that newly privatised businesses did not seek, in a monopoly situation and devoid of any continuing Government influence, to take advantage of their captive customer base.

Importantly, compared with what had existed previously (prices approved by Government), fares or tariff regulation was seen as progression – in the spirit of the process of moving forward through privatisation.

2 UK regulation – its principles

In the US, public utilities have traditionally been regulated on a rate of return basis; in essence:

- an allowed rate of return is specified;
- there is an annual determination as to the level of capital expenditure which is allowed to be counted towards the regulatory asset base; and the level of operating expenses which is allowed to be recovered;
- prices are set by reference to operating expenses and to the allowed rate of return applied to the regulatory asset base; and
- the determination is made on a state by state basis, by appointed public utility commissions whose members are typically either elected or appointed.

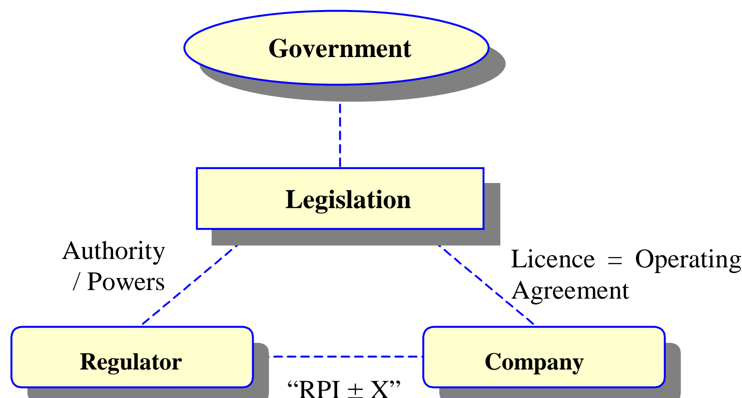
By contrast, the UK mechanism is based on the following principles:

- the prices are typically set over five-year periods, rather than annually, on the basis of projected expenditure (largely driven by progressive changes in operating efficiency);
- the regulated price path is intended to deliver a reasonable target rate of return: but cost savings above and below the projected cost path are solely to the regulated utility's account thereby creating an incentive for efficiency;
- the target rate of return is determined by the regulator at each review; and
- the regulator is an individual appointed by government but with strong protection for his independence.

Under the UK mechanism, the rate of return is largely reset by step changes in prices at each regulatory review (and as rates of return have fallen since privatisation, prices too have fallen) and the ongoing efficiency savings (balanced by consideration of growth and service improvements) are allowed for in the form of a RPI±X formula for specifying maximum charges; overall, these too have caused prices to fall largely through significant employee reductions – this has become the focus of many privatised businesses immediately after privatisation. RPI, the retail price index, is the equivalent in the UK to Hong Kong's consumer price index; so the formula would be expressed in Hong Kong terms as CPI±X.

3 UK regulation – its structure

The structure of regulation involves a constitutional contract between the regulator and the company evidenced in law: it can be generalised and simplified as follows:



Summarising just one example, in the case of the UK railway industry:

- the Government introduced the Railways Act in 1993 in advance of the industry's restructuring and privatisation;
- clause 4 of that Act contains the fundamentals of the constitutional contract which binds the Secretary of State and the Regulator:

  "(1) The Secretary of State and the Regulator shall each have a duty to exercise the functions assigned or transferred to him under or by virtue of this Part in the manner which he considers best calculated –

  (a) to protect the interests of users of railway services;

  (b) to promote the use of the railway network in Great Britain for the carriage of passengers and goods, and the development of that railway network, to the greatest extent that he considers economically practicable;

  (c) to promote efficiency and economy on the part of persons providing railway services;

  (d) to promote competition in the provision of railway services;

  (e) to promote measures designed to facilitate the making by passengers of journeys which involve use of the services of more than one passenger service operator;

  (f) to impose on the operators of railway services the minimum restrictions which are consistent with the performance of his functions under this Part;

  (g) to enable persons providing railway services to plan the future of their businesses with a reasonable degrees of assurance….."; and

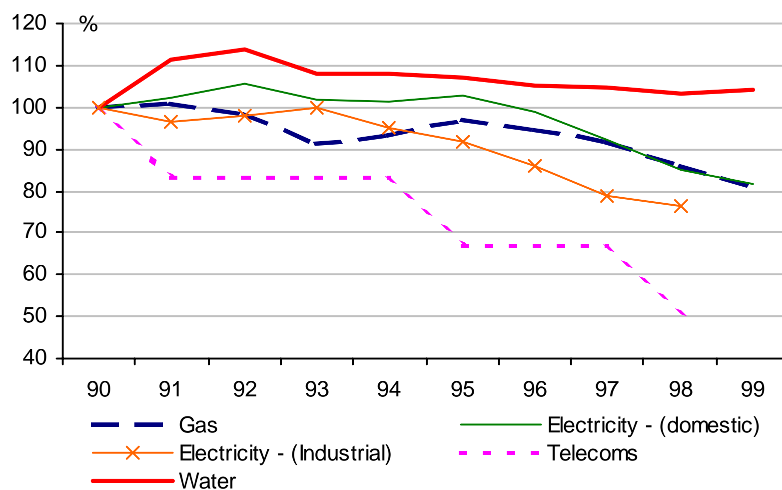
- the Regulator is also "under a duty in exercising [his] functions…to act in a manner which he considers will not render it unduly difficult for persons who are holders of network licences to finance [their] activities…" *(clause 4(5)(b))*.

The legislation therefore serves clearly to establish the powers and roles of both the Government and the regulator.

4 Regulation – in action

We can see that the effect of regulation on prices is demonstrated by the following graphs:

Trends in real prices since privatisation



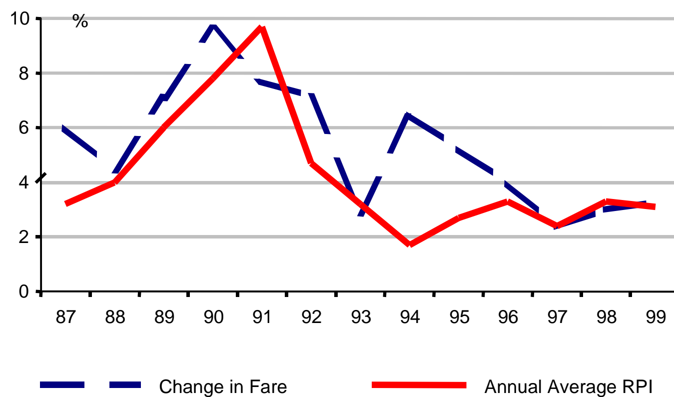
Source: HM Treasury

Looking forward, prices in the water and electricity distribution systems are set to fall by on average 12% and 24% during 2000 respectively.

As demonstrated, the notable exception is water, where prices had to rise to fund significant investment in improvement; the industry was privatised at a £5 billion equity valuation but with commitments to spend £24 billion in the first 10 years of operation, largely on the improvement in services.

In the context of the UK's railways, between April 1996 and March 1998 the average price paid per mile by passengers increased each year by less than the rate of inflation. This went against the trend of the pre-privatisation years, when in every year but one the price per mile increased in real terms.

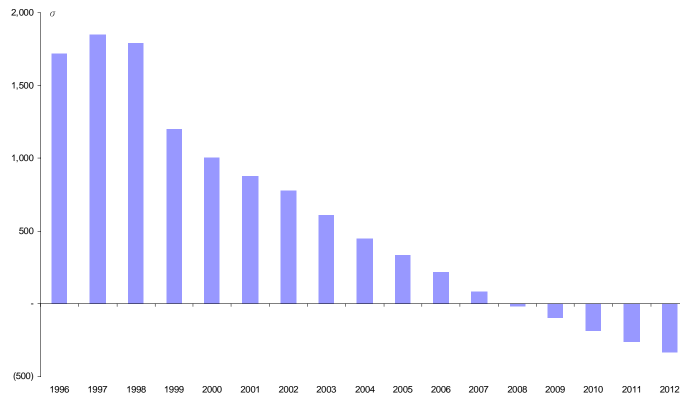
Rate of increase in national average paid vs RPI



Source: Office of Passenger Rail Franchising

This constraint on fare increases since privatisation (particularly when compared to the significant increases experience prior to privatisation) needs to be viewed against the backdrop of the significant decline in subsidy.

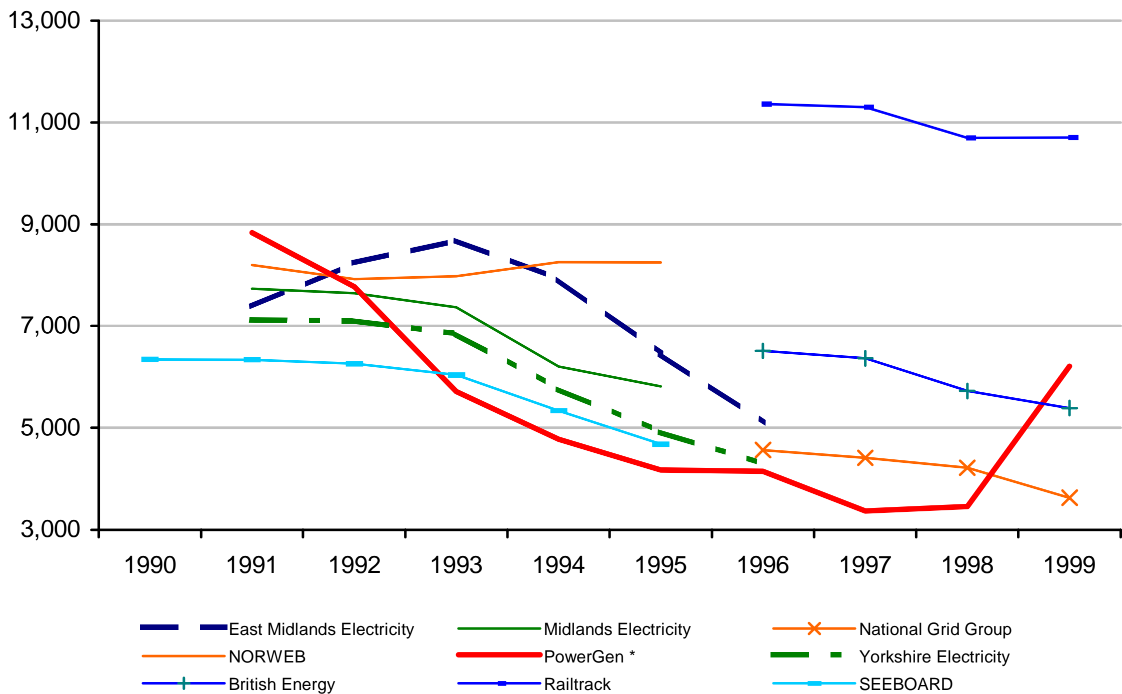
Subsidy profile



Source: Office of Passenger Rail Franchising and N M Rothschild & Sons

However, the effect of strict price control has seen some significant falls in employee numbers:

Employee numbers of selected utilities since privatisation



* The increase in employee numbers between 1998/99 for PowerGen is a direct result of acquisition of East Midlands Electricity.

Source: Datastream and prospectuses

5 Regulation – side effects

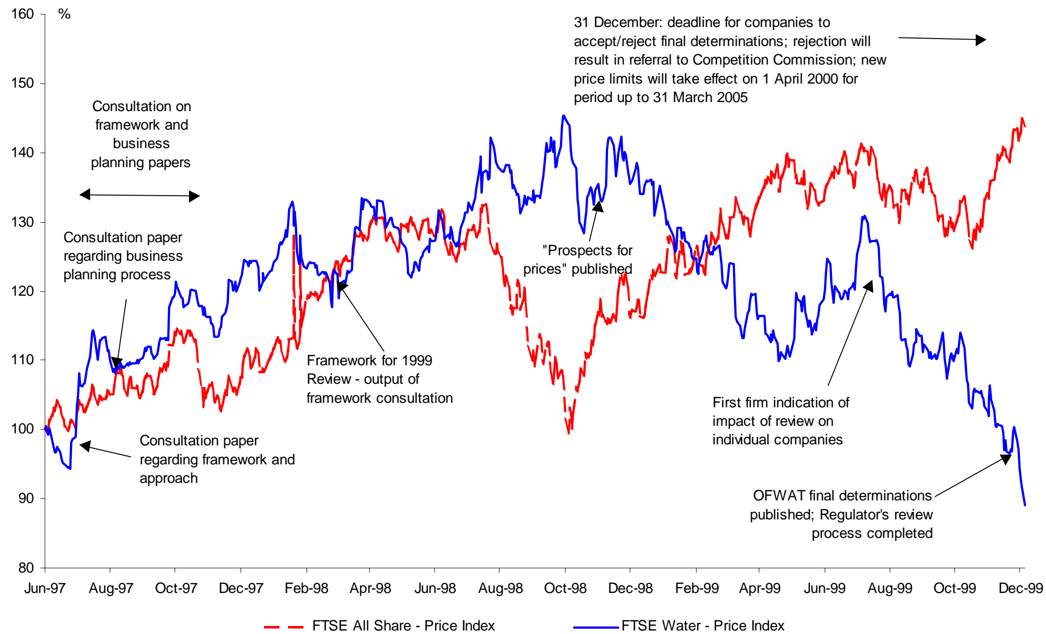
While UK-style regulation has had its success (in the form of persuading old national utilities to deliver better service more efficiency) it has had five unfortunate side effects:

- **Cost**. The rate of return relevant to these capital hungry industries is a key to the basis on which prices are set and, as has been noted above, much of what the UK consumer has seen by way of price reduction has been a direct result of a progressively declining cost of capital. However, the process of determining prices every five years places additional risk on the companies and informs the judgement on the appropriate rate of return and, relative to the US system, we believe that UK regulation adds between 0.5% and 1% per annum to a UK utility's cost of capital. With the real cost of capital for the water and electricity industry having recently been established in a range of 4.5-5%, this represents an increase in the cost of capital of 10-20%.

  In addition, the five main British regulators, for instance, employ nearly 900 staff and have annual budget of about US$100 million. The Office of the Rail Regulator, alone, charged the industry about US$16 million (£9.3 million) in 1998/99 for servicing the office; it is probable that Railtrack incurs at least a similar cost in staffing its office to match the ORR. Together this would equate to close to 1% of Railtrack's turnover for the same period.

- **Uncertainty.** The five-year review process also causes turmoil in equity markets as is evidenced by the share price of the water utilities marked by reference to their price review:

Market performance of water utilities for the 1999 periodic review



Source: Datastream and RBB

Over a period of uncertainty, which can take as long as 1-2 years, a key element of financing equity issuance is closed to the companies involved.

- **Distraction**. This whole process is extremely time consuming and this bears its own cost. For example:
  - it is argued by many that the review process stunts the regular efficiency improvement as companies store up efficiencies to be secured immediately after a review.

- management often focuses on "beating the regulator" rather than on improving the operating performance of the business.

- **Diversion**. As a result, most UK regulated businesses have actively sought to reduce their exposure to their inherited regulated business; sometimes their enthusiasm to release themselves from the regulatory burden has had unfortunate consequences. The business is broken into two components and the best energies are devoted to the management of non-regulated activities.

- **Quality.** RPI–X regulation is too mechanistic and does not allow proper incentive to improve quality; derivatives of the formula, RPI–X+Q, have proved difficult to implement in practice.

Finally, and less easy to demonstrate, has been the confrontational culture which the UK form of regulation has engendered. The sparring between the company and the Regulator has frequently been conducted in public and has diminished the public respect for the organisation concerned and for the process of privatisation.

While the burdens are real, there are few who would argue with a contention that for UK monopoly businesses some form of regulation was important and that, for the inefficient public service businesses in their early days in the private sector, RPI – X has borne significant benefits.

6 UK regulation – its evolution

There is a popular misconception that, even in the old-style regulation, all the activities of the regulated businesses were originally regulated. For example, in 1986 British Gas was privatised with a tariff formula which applied to only the smaller customers; larger customers were unregulated as to supply. As the process of privatisation has evolved, so too has UK regulation:

- competition is increasingly sponsored as a preferred alternative to regulation. For example, the UK Post Office is likely to have its exclusive franchise over the delivery of postage reduced to a proposed 50 pence (in other words, only the Post Office can deliver letters at below this price level). The recent "White Paper" on the future Post Office makes it clear that full regulation will only apply to that franchised element of the service;
- existing competition is increasingly understood; only approximately 39% of train operating companies farebox revenue is regulated. In some franchises this is even less: it is our understanding that only around 20% of the fares of Great North Eastern Railway, the Intercity train service operating between London, York, Newcastle and Edinburgh are regulated. It is believed that there is sufficient competition in the other sectors of the market appropriately secured by the competitiveness of car, coach and/or air to make fare regulation unnecessary. These businesses have been transferred, on franchises, fully into the private sector; and

- there are, increasingly, debates as to whether the RPI–X system really optimises value. For example, it is now understood that the rigidity of the structure of the pricing regime imposed on Railtrack post-privatisation has constrained proper development of the network.

In addition, there is increasing awareness in UK Government that the existing form of regulation leaves a substantial level of business risk with either the consumer or the Government.

There is a mood of change hanging over the UK's regulated activities; no one would now, six years after the last regulatory regime was put in place, use the UK model without serious consideration of alternatives.

7 Regulation – MTRC perspective

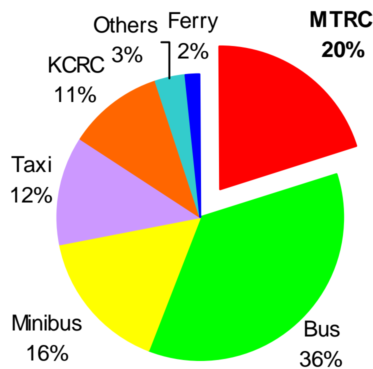
It is worth reciting, particularly in the context of paragraph 2 (which examines the common features of UK regulated utilities), the essential features of MTRC:

- a growing business for whom an efficient capital base is an essential component of its ability to grow to serve better Hong Kong's transport needs.

  The UK railway is 150 years old and is largely static as to its route network.

- operating in a competitive environment with bus, car, taxi and ferry.

Share of different modes of transport in Hong Kong (1998)



Source: Transport Bureau

The effect of competition from newly air-conditioned buses is particularly pertinent to MTRC.

UK regulated businesses are monopolies in certain sectors. It is those sectoral monopolies which are regulated.

- with an existing established fare-setting mechanism which is based on established practice and a common understanding.

Prior to privatisation, most UK regulated industries had had fares / prices set by politicians – this was clearly inappropriate for privatisation.

- a business which is likely to remain in the public sector in the foreseeable future.

  All utilities were majority privatised at first stage.

- achieving levels of efficiency which still set a target for the UK privatised rail industry.

  UK utilities still generate significant efficiency savings up to 10 years after privatisation.

Accordingly, we see many reasons to presume that to maintain the existing price setting mechanism is entirely consistent with current UK practice given the specific profile of MTRC as a growth business, retaining a close Government relationship in an essentially competitive market.

CONCLUSION

It is important that the privatisation yields benefits to a broad community of interests but, in particular, it is important that the exercise allows the Company to develop rather than regress.

In the case of the UK, a prescriptive RPI-X based regulatory framework was imposed to shake monopolies out of years of inefficiency in the public sector. In that

environment, the benefits of improved efficiency, significantly exceeded the costs, in terms of significant increases in the cost of and constraints on the use of capital. As such businesses have matured and where businesses operate in a competitive environment (the non-social services of Intercity) economic regulation is reduced to an absolute minimum.

By contrast with UK privatisation, MTRC has an enviable position being regarded as one of the premier rail transport companies in the world; it has achieved this position through a well-established process of setting fares and with a long-term perspective on planning. It would be very disappointing if privatisation were seen as regressive and were to diminish value and MTRC's ability to provide the Region with an expanding, improving and developing rail network. The ability to charge fares and have a planning period over which investment can secure an appropriate reward are essential to this process.

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December 1999