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A plea for simplicity

A REVIEW OF THE RECENT COMPETITION COMMISSION WATER INQUIRIES

When two small water companies - Sutton and East Surrey Water and Mid Kent Water - rejected the price limits imposed by the Office of Water Services (Ofwat), and prompted a Competition Commission investigation, few believed they would have such a successful outcome. The commission not only recommended a substantial increase in their price limits but also called on Ofwat to simplify the process. What's more, it added the costs to the companies of the inquiry to their price limits.

Ofwat's regulation of water companies involves setting 'K factors', which dictate the rate at which water prices in England & Wales can increase relative to inflation. The K factors set in November 1999 cover the period 2000 to 2005. In reassessing Ofwat's decisions, the commission reconsidered all aspects of the price setting process.

The basic principles underlying this process are relatively simple. The idea is to combine forecasts of demand, operating expenditure, investment and capital →

maintenance charges, and then to set K factors at a level that provides for an adequate return on a company's investments. However, forecasting these different elements is far from easy. It involves making major judgements about customer behaviour in the future, the scale of investment that is needed, the scope for companies to become more efficient, and the need for them to improve their quality of service.

At the end of its deliberations the commission set price limits that were significantly higher than those Ofwat had originally determined. In arriving at the decision to make greater allowance for a number of items in the calculations, the commission indicated that it felt uncomfortable with a number of Ofwat's key methodologies. A number of alternative approaches were used by the commission.

GO EASY ON THE METER

Oddly enough, the commission did not focus on one of the key elements: the forecasting of demand for water. A more contentious issue proved to be the impact of metering. A key issue for both companies was the rate at which customers may take up their rights to free meters, which will have important consequences for future revenues (and costs). Companies not only have to bear the costs of installing and running meters, but they can expect to lose revenue when low consumption customers opt to have these installed.

Ofwat had adopted a deliberately conservative forecast for metering, hoping to leave the bulk of any necessary adjustment to the Interim Determination mechanism. This permits K factors to be adjusted between price reviews in certain specified circumstances.

By contrast, the commission considered that a conservative forecast of metering was likely to produce results that were not in the public interest. It believed that while this approach would obviously reduce Ks (and therefore water prices) in the short term, it might mislead customers as to the likely financial impact of metering over the medium term. The commission therefore increased the allowance for metering, to reflect its view of what was actually likely to happen over the five years. It did, however, emphasise that the 'Interim Determination' process must be symmetrical: that is to say, Ks might not merely be increased but might be decreased, if metering occurred more slowly than had been allowed for.

MODELS OF EFFICIENCY

A key element in any price determination is the assessment of the rate at which each company should be able to reduce its base costs. Ofwat had tackled this question by identifying the savings that it believed could be achieved by an efficient company (referred to as the 'frontier shift'), and then considering whether there were additional savings that individual companies could be expected to achieve to 'catch up' to the efficient level. The commission agreed with Ofwat's assessment that it was reasonable to expect an annual efficiency improvement, or 'frontier shift' of 1.4%. In accepting Ofwat's view, the commission was influenced mainly by the performance of the water industry in recent years, as well as by that of the other privatised industries.

To assess each company's potential to 'catch up' to the frontier, Ofwat relied on a series of detailed econometric models of water industry costs. Ofwat assumed that 60 per cent of any inefficiency - relative to the most efficient company - could be removed over the five-year period.

Despite heavy criticism from the industry, the commission considered Ofwat's modelling to be valid.

This was not, however, the end of the efficiency story. Professor Stewart at Warwick University was asked by the commission to think about alternative models, and he proposed a second one, which the commission considered to be equally valid. The results yielded by both models were therefore used by the commission in forming its judgement about the scope for efficiency improvements.

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A remarkable feature of the new model used by the commission is that company's operating costs are explained solely in terms of the number of billed properties. However, somewhat questionably, the model assumes that the operating environment has no impact on the level of costs. This would appear to penalise companies with low population density, those with complex treatment requirements and those serving properties where water consumption is high.

The Stewart model is too simplistic to be the final word on the measurement of efficiency. At the same time, the fact that the commission considered such a simple model to be as valid as the detailed models Ofwat has built up over many years calls into question the viability of these other models. Ofwat cannot now simply go on using them in future. The development of new approaches to measuring relative efficiency should be a priority for Ofwat and the industry.

A SERVICEABLE APPROACH?

Investment involves not merely the construction of new assets (to achieve growth, higher quality and service improvements) but also the maintenance of existing ones. The commission raised concerns about Ofwat's approach to the assessment of future maintenance requirements. This approach involved relating past levels of maintenance expenditure to the performance of the assets, in terms of the service to customers (the assets' 'serviceability'). For the pipe network, serviceability was measured in terms of the number of interruptions to supply, bursts and low pressure. Ofwat took the view that if serviceability is not deteriorating, then past levels of maintenance must have been adequate, which in turn suggests that there is no need to increase spending on maintenance in future.

The commission had some sympathy with the serviceability approach. However, it felt that the relationship between past levels of spend and Ofwat's serviceability measures was not necessarily an adequate 'leading indicator' of future requirements. It argued that it would be more useful to model the rate of change of the condition of the assets. In the absence of such a modelling approach, the commission made a judgement as to the appropriate level of maintenance expenditure, based upon a static view of the condition of the companies' pipe networks. At the same time, the commission called on Ofwat and the industry to develop a better understanding of the links between serviceability and asset condition.

WATCH THE CASH FLOW

In the regulatory price setting process, capital expenditure is funded by a mixture of capital maintenance charges (i.e. depreciation), which feed directly into calculations of the revenue allowed to the company, and additions to the regulatory asset base, which are funded over time through the return on the higher asset base.

There are, broadly speaking, two methods of determining the appropriate level of capital maintenance charges: a depreciation-based approach, and a cash-flow approach. Under the depreciation approach the capital charge is determined mechanistically: the calculation is based on the value of the existing pool of assets and estimates of their remaining useful lives. Under the cash-flow approach, the capital charge is set at a level equal to the forecast of capital maintenance expenditure that will be required.

The choice of approach is important, because it can affect the timing of cost recovery. Suppose depreciation was less than maintenance expenditure. Under the depreciation approach, the extra expenditure would be recovered from future customers through a higher asset base. Under the cash-flow approach, the expenditure would be recovered from current customers through the capital charge.

Ofwat started with the pure depreciation figures, but then applied an adjustment to ensure that depreciation was broadly in line with long-term projected level of relevant investment. In effect this moved the treatment of depreciated assets from a depreciation to a cash-flow approach. Ofwat's rationale was that charges should reflect the

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consumption of assets and that there should be equity between customers of different generations.

The commission however decided that Ofwat's adjustments to depreciation were not justified. Firstly, it argued that current cost depreciation should provide a reasonable measure of the consumption of assets. Secondly, under Ofwat's approach there was no assurance that the adjustment would produce a more equitable charge between generations. This decision resulted in a significant increase in cash-flow for both companies over the five-year period.

The report made clear that the commission was not opposed, in principle, to a cash-flow approach: indeed, it recommended that the matter be given further study. So although Ofwat may not repeat the pattern of specific adjustments that it made in the last review, it may still consider moving to a cash-flow approach to capital maintenance in the next one.

CLOSER THAN THEY LOOK

Although it has been suggested in the press that the commission used a higher cost of capital than Ofwat had allowed, they did not, in fact, differ greatly on this issue. The misapprehension arose partly from the fact that both the commission and Ofwat arrived at their estimates by considering an appropriate range for each component of the cost of capital (the risk-free rate, the equity risk premium, etc.) and that in almost all cases, the commission's range was higher than Ofwat's. When it came to the final judgement on the overall cost of capital, Ofwat simply chose the top of its range, while the commission settled for the middle of its (higher) range. The commission's approach does, though, reduce the probability that a lower cost of capital will be used in future reviews.

THE COST OF VICTORY

Two other issues arising from the inquiry are worth mentioning. The first is that in determining the revenue to be recovered by the companies from water users, the commission included the costs of the inquiry itself. As far as we are aware, it was the first time this has happened. The commission was given legal advice that if the appeal was found to be reasonable, then it should award reasonable costs to the company. The report indicated that this issue should be considered further.

Two elements of this decision need to be questioned. The first is whether a company should be awarded costs when its appeal is deemed to be reasonable. The second is where any such cost award should fall. The commission's verdict has the effect of making companies' customers bear the cost of their appeal. If costs are to be awarded, there is a case for spreading the burden across all water-users or taxpayers by meeting them from the public purse.

The second important issue arises from the commission's comment that the price setting process has become too complicated. The commission argued that the precision sought in some areas did not correspond to the degree of judgement required in others. It called for Ofwat to consider how the process could be simplified. The implication is that in areas where Ofwat has become immersed in detailed calculations it should consider how these could be simplified in order to make the whole process more consistent and transparent. This plea for simplicity should provide substantial food for thought, both for Ofwat's new Director General and the industry.

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