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Agenda

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A liquid market for mergers? Assessing acquisitions in the water industry

In light of the UK Competition Commission's recent clearance of the proposed merger between Mid Kent Water and South East Water, Alan Horncastle, Oxera Principal, and Professor Subal Kumbhakar, Oxera Associate, examine the analysis that led to the Commission's decision

In November 2006 the Office of Fair Trading (OFT) referred the acquisition by Hastings Diversified Utilities Fund (HDUF) and Utilities Trust of Australia (UTA) of South East Water Limited (SEW) to the Competition Commission for investigation and report. HDUF and UTA are also the owners of Mid Kent Water Limited (MKW). On May 1st 2007, the Competition Commission approved the merger between MKW and SEW.[1] Oxera advised Hastings (which made submissions to the Commission on behalf of HDUF and UTA) throughout the inquiry.

Both companies are water-only companies (WOCs). MKW serves a population of around 0.6m in Kent and a small part of East Sussex, making it the sixth-smallest of the 22 water companies.[2] SEW serves a population of around 1.4m (the twelfth-smallest—ie, around average in the industry as a whole, but the second-largest WOC). It serves two distinct, non-contiguous areas—the northern region (including parts of Berkshire, Hampshire, Surrey and West Sussex) and the southern region (including parts of Kent, East Sussex and West Sussex). The southern region shares a boundary with MKW.

Mergers in the water industry in England and Wales

The water industry in England and Wales is structured as a series of local regional monopolies regulated by the Water Services Regulation Authority (Ofwat), and competition is limited compared with other regulated industries (notably telecoms, electricity and gas). As a result, the water industry has relied more than most regulated industries in the UK on comparative competition, whereby the regulatory regime introduces quasi-competitive pressures by undertaking comparative performance assessments between the water companies and setting them performance improvement targets based on these comparisons.

A critical aspect of the current technical approach taken by Ofwat in its comparative efficiency analysis is its reliance on having 'enough' independent companies with which to undertake these comparisons. Such modelling is based on cost comparisons between companies.

Given this regulatory regime, any proposed merger is automatically referred to the Competition Commission. In the course of its inquiry, the Commission assesses whether a merger has prejudiced, or may prejudice, the ability of Ofwat to make comparisons between water enterprises. This can be contrasted with the approach of the Commission in 'normal' merger cases, in which the assessment of the impact on the market is whether there is a 'significant lessening in competition'.

With the exception of the 2002 Vivendi case,[1] proposed water company mergers have tended to have been prohibited, or subject to significant remedies, following assessment by the Competition Commission. For example, in December 1995, General Utilities plc and SAUR Water Services made a joint bid for Mid Kent Holdings plc. They planned to divide Mid Kent Water and merge the two parts with their own WOCs. In its 1997 report, the Commission prohibited the merger.[2]

In addition to these past decisions, the changes introduced by the Enterprise Act 2002 mean that the latest proposed merger represents an interesting test case for the water industry.[3]

Notes: [1] Competition Commission (2002), 'Vivendi Water UK PLC and First Aqua (JVCo) Limited: A Report on the Proposed Merger'. The majority of the Competition Commission panel had suggested a divestment of Vivendi's 31.4% holding in South Staffs Group as the remedy.
[2] Monopolies and Mergers Commission (1997), 'Mid Kent Holdings PLC and General Utilities PLC and SAUR Water Services PLC: A Report on the Proposed Merger', January.
[3] The Enterprise Act 2002 modified the merger regime in water, including making the Competition Commission a formal decision-making body (prior to the Act, the Secretary of State had final say on whether to approve or block a merger), in which a majority (rather than a unanimous) decision will suffice.

Since 2000, while there has been substantial activity in the water industry, with numerous changes in ownership, merger activity has been limited. This lack of merger activity raises questions about whether potential cost savings—and thus price reductions—are being forgone by limiting the potential gains from any economies of scale that might exist in the industry.

Why a merger might be considered detrimental to customers

Given the relative lack of actual competition in the UK water industry, the regulatory regime is designed to ensure that there are incentives for companies to operate at an efficient cost level. This includes undertaking comparisons of costs between companies. As such, it might be considered that there could be negative effects on water customers as a result of a merger between two water companies from any impact that the reduction in the number of independent companies may have on:

- the remaining companies' incentives to improve performance;
- Ofwat's ability to undertake comparisons and set companies' performance improvement targets.

It is arguably these two points that form the basis of the main issues that the Competition Commission takes into account when considering the impact of a merger.

SEW and MKW merger: issues considered by the Commission

The Competition Commission considered whether the merger had prejudiced (or may be expected to prejudice) Ofwat's ability to make comparisons between water companies for the purposes of assessing performance and setting price controls. In determining this, the issues of most relevance examined by the Commission included the following.[3]

- The current and future likely performance of SEW and MKW and, in particular, whether the companies were, or are likely to become, a benchmark for the water industry.

- The number and characteristics of companies required for the effective operation of the existing comparative competition framework, including any similarity in the costs or controls of the companies, and the information required to enable them to be appropriately and effectively compared; the type of analysis currently used; and the availability of alternative sources of information and/or data for such comparisons.

- Whether the merger might decrease the precision of Ofwat's modelling, and thus reduce the reliance it can place on efficiency comparisons in setting price caps, and/or whether it could lead Ofwat to set higher price caps for all companies than would otherwise be the case.

- To the extent that Ofwat can place less reliance on efficiency comparisons, whether this might result in price controls being based to a greater extent on factors relating to the companies' own costs, and to a lesser extent on factors that are independent of these costs, thereby reducing the incentives on water companies to achieve cost savings.

- Whether the merged company might be a better comparator than either of the individual companies prior to the merger.

- The impact of alternative methods of comparison when examining these issues.

What are the potential economic benefits to customers?

It was argued by Hastings that the merger would bring a number of benefits to consumers, including:

- operating cost reductions;
- capital expenditure reductions;
- a reduction in the cost of capital allowed for the merged company at the next periodic review (PR09) via the allowed small company premium;
- benefits for water resources in terms of improved security of supply to customers and improved planning of resources such that some investment projects could be postponed.[4]

Thus, critical to any merger inquiry is an assessment of the cost and benefits of the merger in order to determine whether it should be allowed to proceed.

Addressing the issues empirically

When considering the merger between MKW and SEW, the Competition Commission considered four possible areas of detriment:[5]

- the impact on the benchmark in Ofwat's econometric models;
- the impact on the precision of Ofwat's econometric modelling;
- the impact on the cost base;
- the impact on qualitative comparisons.

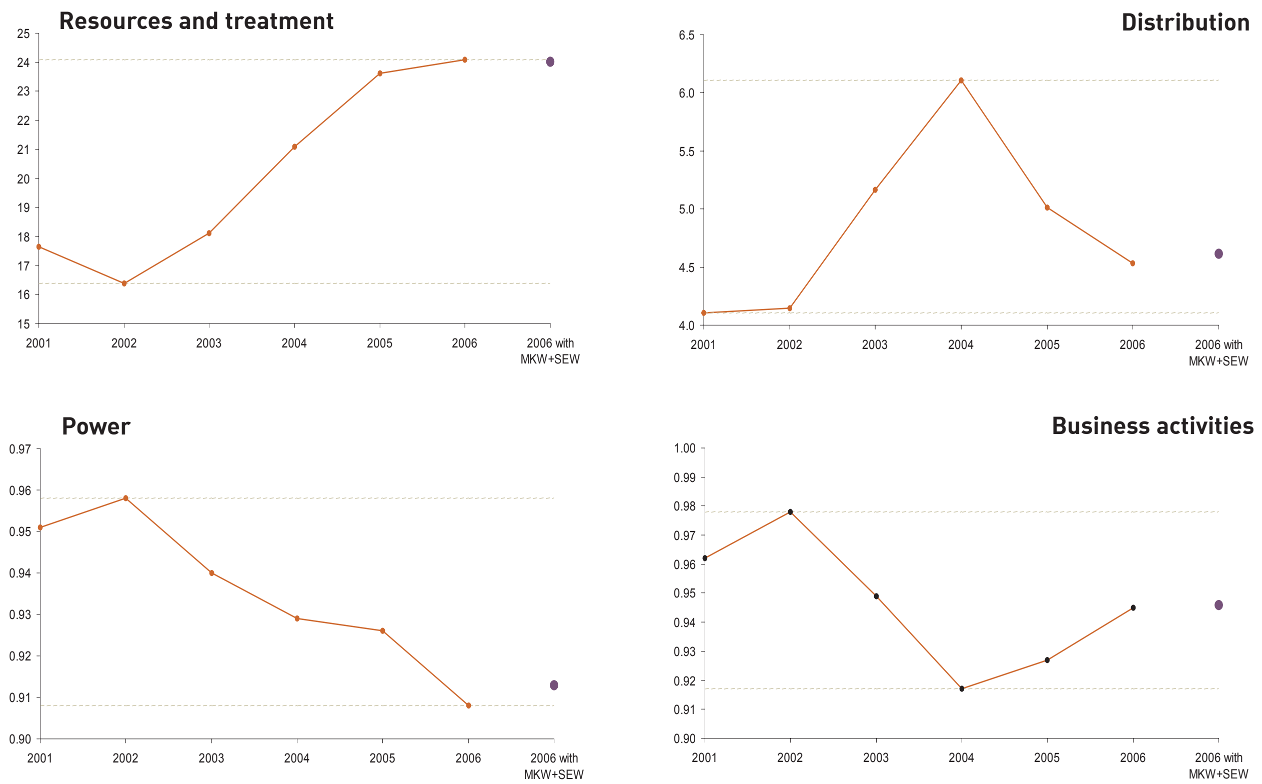
The first relates to the likelihood of either company becoming a benchmark for setting operating and capital maintenance expenditure performance targets for the water industry, and how this likelihood compares with that of the merged entity. This was assessed by examining historical operating and capital maintenance expenditure performance rankings and the movements therein. Given the two companies' current relatively average performance, and historical changes in all water companies' efficiency rankings over time, the Commission concluded that neither MKW nor SEW could be expected to reach the benchmark in either operating or capital maintenance expenditure in PR09, and that, after PR09, it could not form an expectation that the merged company's performance would be worse than that of SEW.

The last three areas of possible detriment relate to any impact that the reduction in the number of independent companies (from 22 to 21) may have on Ofwat's ability to undertake comparisons and set companies' targets. Of the three, the Commission found little detriment in the last two, so the focus of the inquiry was on the impact on the precision of Ofwat's econometric modelling, which was the more complex area to analyse.

The impact on the precision of the modelling can be viewed in terms of the reliability of cost prediction in Ofwat's models. In simple terms, this means that the model's precision is likely to decline as the number of independent water companies is reduced (from 22 to 21) since there is less information on which to base the assessment. The starting point of the Commission's analysis was to compare, theoretically, the precision of modelling with 22 observations with modelling with 21 observations. The (theoretical) reduced precision was converted into percentage monetary values and viewed as an estimate of the cost of the merger to consumers.

However, such an approach ignores the specific features of the case in question, which are what the Commission is required to assess. In a merger of two companies, two independent companies are lost and a new one is gained. Since the merger of two companies is not as simple as losing one independent comparator (in which case the precision of cost prediction is clearly reduced), the only option is to examine the issue of the merger empirically. That is, it cannot be concluded, a priori, whether there will be an increase or decrease in precision, so the empirical results of modelling 22 observations have to be compared with modelling 21 observations (where one of these 21 is a combination of two of the observations in the original dataset of 22). A considerable amount of empirical modelling was undertaken during the course of the inquiry. Figure 1 provides one example of this analysis.[6] Here, the impact of using data on the merged entity (MKW+SEW) on the estimated relationships between costs and cost drivers is compared with the historically estimated relationships. The plotted series show the estimated coefficients for each model using data on the 22 companies starting in 2000/01 and ending in 2005/06, with the final large dot at the end representing the estimated coefficient in 2005/06 when using a dataset with 21 observations (where one

Figure 1 Estimated relationships between costs and cost drivers



Source: Oxera.

observation represents the new merged company). The horizontal dotted lines show the historical minimum and maximum values of the coefficients from the estimated models over this period, and demonstrate that the historical variation has been greater than the impact that the merger would have on these estimated values, and that the impact of modelling the 21 observations (ie, with the merger) versus modelling the 22 observations in 2005/06 (ie, without the merger) is negligible. Thus, the analysis shows that the impact of the merger in terms of the estimated relationship between costs and cost drivers across each of the models used by Ofwat is within the bounds of the variation that has occurred historically using different datasets on the 22 companies. This indicates that the impact of the merger is not significant with respect to this particular issue.

Further empirical analysis involved examining the estimated industry-wide inefficiency gap to the efficiency frontier. The impact of the merged observation of this gap—ie, the difference between the two estimated inefficiency gaps—is around 0.2%. Such analysis showed that any impact was both economically and statistically insignificant.

The Competition Commission concluded that, while there was some impact from the merger on Ofwat's ability to undertake comparisons, it was limited:

> Overall, given the evidence set out in paragraphs 5.47 to 5.68, we conclude that the merger is likely to have an adverse impact on the precision of Ofwat's econometric models. We found that the adverse impact was likely to be small and would be likely to lead to higher price caps being set for companies in England and Wales than would otherwise be the case.[7]

The benefits for customers

The Commission considered that the merger between MKW and SEW should proceed because it found limited detriment to water customers, which was more than offset by the benefits that the merger would bring. These benefits include lower prices as a result of cost reductions and lower financing costs (in total estimated at around £4m per year), and water resource benefits (not quantified).

An alternative to the current approach to comparative analysis?

The above discussion on the impact of a merger on Ofwat's ability to undertake comparisons ignores a different route that Ofwat could take when setting its price controls for the water companies—namely, alternative modelling approaches. Such alternatives include:

- panel data (ie, using data both across companies and over time);
- sub-company data (ie, using data at below the company level);
- techniques that can use that same data but look at it in a different way and thus, by using several approaches, can add confidence in the results.

The Commission concluded that:

> We found there to be scope for exploring the use of both sub-company data and, in particular, panel data. There might also be scope to ensure that Ofwat made the maximum use of the available data from other sources (eg other countries or industries), and to use alternative techniques (such as SFA and DEA) to validate the results of Ofwat's existing econometric models where possible.
>
> We found that it was not possible, in the context of a merger inquiry, for us to reach a definitive view as to the methodologies Ofwat should adopt for PR09 and for the future. We noted that Ofwat is actively considering its approach for PR09, and that it was doing so independently of the merger. Nevertheless, we considered whether it would be practicable and cost effective for Ofwat to develop comparative methods that are less sensitive to the number of comparators than those currently used. Overall, we were not persuaded that our views on the impact of a loss of a comparator as a result of this merger would differ significantly if Ofwat were to use any of the alternatives.[8]

Concluding comment

The Competition Commission has broadly set out four areas of possible detriment that might occur with a proposed merger in the water industry, and has presented approaches that can be used to examine these issues for future proposed mergers. In this instance, the Commission has concluded that there is limited detriment to the regulatory regime and that the merger itself brings consumer benefits.

Alan Horncastle and Subal Kumbhakar

[1] Competition Commission (2007), 'South East Water Limited and Mid Kent Water Limited: A Report on the Completed Water Merger of South East Water Limited and Mid Kent Water Limited', May 1st.
[2] Of 22 water companies, 12 are water-only companies and ten are water and sewerage companies.
[3] Competition Commission (2006), 'Completed Acquisition of Macquarie Luxembourg Waster SARL (now Hastings Luxembourg Water SARL) by Hastings Diversified Utilities Fund and Utilities Trust of Australia: Statement of Issues'.
[4] Competition Commission (2007), op. cit., para 8.109–8.120.
[5] Ibid., para 11.
[6] Ibid., Appendix G.
[7] Ibid., para 5.81.
[8] Ibid., paras 6.23 and 6.24.

If you have any questions regarding the issues raised in this article, please contact the editor, Derek Holt: tel +44 (0) 1865 253 000 or email d_holt@oxera.com

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