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Agenda

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Water mergers: what are the prospects?

Historically, the regulatory regime in the England and Wales water sector has restricted merger activity in order to protect comparative competition between the regional monopolies. However, recent developments suggest that comparative competition in water is now less important than it once was. Mergers are therefore more likely to be facilitated in future

The context

The England and Wales water industry comprises 22 regional companies, including ten water and sewerage companies (WASCs) and 12 water-only companies (WOCs). The regulator, Ofwat, sets prices for the industry every five years—most recently in December 2004, as the culmination of the 2004 periodic review.[1] These new price limits came into effect in April 2005.

The provisions of the Water Industry Act 1991, as amended by the Enterprise Act 2002, mean that the criteria for a reference to the UK Competition Commission of a water merger, and the remit of the Commission when it examines a water merger, are somewhat different to those of any other sector. A merger between two water companies must be referred to the Commission if the turnover of either party exceeds £10m,[2] which effectively means that all proposed mergers are automatically referred. The Enterprise Act recently introduced a 'substantial lessening of competition' test for all mergers, but for water mergers, this test examines whether a merger 'has prejudiced, or may be expected to prejudice, the ability of the Director, in carrying out his functions … to make comparisons between different water enterprises'.[3]

The idea of comparative competition is thus instilled within the water mergers regime. Where a detriment to comparative competition is found to exist, the Commission must examine the degree to which there are any countervailing benefits from the merger, and consider the potential remedies.

The above situation is similar to what has existed in the water sector for some time. Historically, however, the regime has restricted merger activity. There have been no successful WASC–WASC mergers to date.[4] Although other mergers have taken place (WOC–WASC and WOC–WOC), these have usually been accompanied by large price-cut remedies. As will be discussed in this article, the 2002 proposed Vivendi/Southern Water merger, a WOC–WASC transaction, came very close to being cleared without a price-cut remedy.[5]

The role of comparative competition

To explore the role of comparative competition in water, it is useful first to consider what the desirable effects of real competition are in any industry. The first-order effect of competition is that there should be lower prices, as price–cost margins are competed down. A second-order effect is that, over time, competition should facilitate innovation—those firms that innovate, either by reducing their costs (process innovation) or through product innovation, should gain business at the expense of those not innovating. This has spillover effects over time, as best practice is diffused.

In the water sector context, real market competition cannot be relied on to deliver these first- and second-order benefits, as the sector is characterised by regional monopolies. Part of the solution adopted is for companies to 'compete' against the regulator, through RPI – X regulation. This protects against monopoly power, while the fixed-price nature of the price cap drives companies to outperform. The other part of the solution is to encourage companies to compete with one another indirectly, using comparative competition.

At periodic reviews, Ofwat uses comparisons of water company operating expenditure (OPEX) and capital expenditure efficiency to set catch-up targets. Less efficient companies are set tougher targets, and a minimum efficiency target, common to all companies, is also set. The Overall Performance Assessment (OPA) framework also rewards or penalises companies, within the price limits, for service performance. Between reviews, Ofwat regularly publishes comparisons—for example, of comparative efficiency, service performance, financial measures, investment, tariffs and transfer pricing.

Ofwat's position is that within-industry mergers reduce the number of independent companies, which is detrimental to comparative competition. Although the precise nature of comparative competition has never been set out, it appears to be hypothesised by Ofwat as having three principal components.

– *Leap-frogging*—more diversity in management styles, since this is hypothesised to lead to the advancement of the efficiency frontier.

– *Accuracy of data comparisons*—a greater number of independent data points improves the accuracy of Ofwat's comparisons, which in turn facilitates the setting of catch-up efficiency targets.

– *Identification of the frontier*—having a greater number of independent data points assists in identifying the benchmark (to which companies are assumed to catch up).

The first of the above components is Ofwat's main concern. The regulator has not explicitly named the mechanism by which leap-frogging is hypothesised to occur; however, there would appear to be two alternatives:

– conscious attempts by companies to outperform one another (an incentives perspective);
– a random process of leap-frogging if a wider range of independent management styles exist, leading to more diverse outcomes.

The notion that firms *consciously* compete with one another has some credence. An argument is sometimes made that setting absolute targets under a system of RPI – X generates the same incentives as setting relative targets under comparative competition, since any firm faces the same incentive to outperform any given target. However, this is a 'one-shot' viewpoint; if multiple periodic reviews are considered, comparative competition can produce different dynamic incentives to absolute targets under RPI – X. Essentially, companies can control their own costs but not other companies' costs.

Under simple RPI – X regulation, if a regulator sets targets on an absolute basis for five years, as year 5 approaches, company A may not face especially strong incentives to reduce its costs. There is no ex post penalty in being inefficient relative to other companies—at the next review, costs within the new price limits are simply reset according to company A's outturn cost level, less some projected absolute efficiency target.

If, however, prior to year 5, company A expects the regulator to undertake cross-company comparisons of efficiency performance at the next review, its efficiency targets going forward will be expected to depend on how its own efficiency levels stack up against those of other companies. Given that company A cannot control the cost levels of other companies, all it takes is for one company to reduce its costs sufficiently for company A to have to follow (if it does not, it will be worse off in future, since it will face tougher efficiency targets). This dynamic can be further encouraged by rewarding frontier performance.

Leap-frogging effects, data accuracy and frontier identification are not, therefore, completely separable concepts. More accurate comparisons may make it more likely for any conscious leap-frogging dynamic to be realised. Also, if, at the time of a merger, new techniques for comparing companies' efficiency are introduced that partly abate the loss of data accuracy caused by losing a comparator, these will also mitigate the effects of losing a comparator in respect of leap-frogging.

This potential for a conscious dynamic is reflected in the Competition Commission's guidance on water mergers (discussed below). However, the concept has never been proven empirically. What has also never been proven is that all water companies compete on an equal basis with all other water companies, rather than with close comparators. Both are unresolved issues.

Detriments versus benefits

Historically, Ofwat has been keen to emphasise the detrimental effects that mergers have regarding leap-frogging, data accuracy and frontier identification. One of the most controversial issues is how this detriment should be quantified. Ofwat's approach is to use a simulation model framework, which appears to mimic the potential leap-frogging effect (either conscious or random) at the frontier, and the possible detriment caused following the loss of an independent comparator. Ofwat's valuations were last published in the 2002 Vivendi/Southern Water inquiry (referred to above). Here, the regulator argued that the average loss to the comparative regime ranged from £40m for a small WOC to £620m for a 'huge' WASC.

Although Ofwat argued that this captured only water company OPEX, and ignored other aspects of the loss of a comparator (eg, data accuracy), the above discussion of interdependence highlights that the approach may capture more than what Ofwat suggests. In addition, there are reasons to be sceptical about the high numbers generated by the approach. It considers only the target company, rather than how those companies directly affected by a merger might behave after the transaction. As discussed below, there has been recent significant convergence in the industry, which reduces the value of comparators more generally, and the Competition Commission is also sceptical of attempts to quantify the detriment.

Where a detriment is found, the Competition Commission needs to consider whether there would be countervailing benefits from the proposed merger. Aside from intangible benefits, the tangible '£m' benefits would appear to come from two principal sources: potential economies of scale or scope (if bigger is better); and more effective management (if it is supplied by a superior company to a laggard).

It is of note that Ofwat has sought to play down the existence of countervailing benefits of mergers via economies of scale. In 2004, the regulator published the findings of a report it commissioned on the subject.[6] The report claimed that there are diseconomies of scale for WASCs in the industry, and that a 1% increase in scale results in a 1.6% increase in costs in the long run.

What has changed?

A number of recent developments have affected the comparative regime.

Enterprise Act 2002

The Enterprise Act modifies the merger regime in water. The significant changes are that it places a duty on the Competition Commission to produce upfront guidelines on its approach to mergers (clarifying the approach it might follow), and makes the Commission a formal decision-making body (previously, 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.

The latter removes political involvement from the decision-making process. Such involvement was apparent in the 2002 Vivendi inquiry. Although the majority of the Commission approved the proposed merger, conditional on divestment by Vivendi of its share in South Staffordshire Water, one member of the Commission panel dissented. The matter was then referred to the Department of Trade and Industry, which ruled that the Commission majority's proposed solution was 'not an appropriate remedy'.[7] Both the Office of Fair Trading and Ofwat became involved in designing a substitute remedy, by which time Vivendi decided not to acquire a majority stake in Southern Water (due to changing market conditions and financial reasons).[8]

Thin-equity models

The system of regulation in the water industry is a hybrid of RPI – X regulation and comparative competition. Crucially, this system requires that management across the sector seeks to outperform the regulatory contract in the first instance. However, much of the acquisition activity in the water industry in recent years has been undertaken by financial organisations (eg, banks), resulting in highly debt-financed (ie, highly geared) financial structures. Ofwat has acknowledged that this has in part been due to the current restrictions on water mergers.[9]

Going forward, the question emerges as to whether further moves towards highly geared structures will advance the efficiency frontier. There are two potential views on this. One is that hand in hand with highly leveraged structures go highly leveraged incentives—the small equity component is very exposed, and thus the owners place even more pressure on the company to perform well. The alternative view is that further moves towards such structures would result in:

– *less push for outperformance*—banks prefer stable cash flows to outperformance per se, which in turn may affect the preferences of management; and
– *less divergence in approaches*—the reduction in financial flexibility in highly geared structures may mean that management opts for projects that are less risky—for example, by adopting proven technological solutions rather than risking more innovative solutions.

Hence, it is unclear whether the moves towards thin-equity structures will necessarily advance the efficiency frontier as part of the hybrid system of RPI – X/ comparative competition. In turn, given that one of the important reasons for the emergence of financial rather than 'trade' buyers is the current restrictions on mergers, this introduces the question as to whether it is preferable to have more companies that are highly geared yet owned by (for example) banks, or fewer companies that are more traditionally financed with equity at their core.

On these particular grounds, does this mean that more mergers should be allowed to go ahead? Given that RPI – X/comparative competition works best with an equity model, the answer would appear to be 'yes', but only if, prior to the merger, there is a credible commitment by the parties to the equity model post-merger. Going forward, it is possible that specific undertakings would be required to ensure this.

Efficiency and service convergence

Another development is that there has been significant convergence across the industry in recent years around the efficiency frontier. Although it could be argued that fewer differences between companies make comparisons more difficult, pointing towards retaining rather than losing comparators, this misses the point. In theory, increased convergence reduces both the degree to which comparative assessments inform efficiency target-setting (in terms of the £m effect on prices), and the degree to which different management styles will shift the frontier going forward.

There is ample evidence across the industry regarding this convergence. For example, in its December 2004 final determinations, Ofwat stated that 'the improvement in relative efficiency since 1999 is striking', with 'more companies clustering around the industry frontier for operating costs and capital expenditure'. Also, in respect of service performance, Ofwat stated that, since the last review (1999), OPA scores had 'improved considerably, with companies' scores converging towards the maximum'.

The Vivendi case and beyond

As highlighted above, the Vivendi case was nearly cleared by the Commission. The case has certainly influenced the Commission's final guidelines on its approach to merger references.[10] (Ofwat responded to a draft of these guidelines.[11]) Particular points of note in the final guidance are as follows.

– *Data accuracy*—the Commission highlights that the robustness of econometric modelling generally declines as the number of independent comparators falls, particularly for sewerage services. However, it may consider whether Ofwat could practicably use alternative comparison methods, which are less sensitive to the number of comparators, offsetting some of this detriment. Ofwat did not comment on this. Of note is that, in the Vivendi inquiry, the Commission majority accepted that alternative techniques could be used to model the water service. It remains to be seen whether such arguments extend to the sewerage service (ie, to WASC–WASC mergers).

– *Leap-frogging*—the Commission recognises the dynamic incentive effects that a reduction in the extent of independent ownership may cause, as discussed above. To the extent that water companies expect Ofwat to place less reliance on comparisons, they may expect future price caps to be based to a greater extent on factors related to their own costs, rather than on those independent of these costs, thereby reducing efficiency incentives.

– *Autonomy*—the Commission will also consider the degree to which, post-merger, the entities concerned would operate under separate management. These issues were discussed at length in the Vivendi inquiry. The Commission majority stated that Southern Water would become 'less distinct' post-merger, even with separate licensing in place, and that this represented a detriment. Interestingly, no mention is made in the guidance of the use of a target company as a benchmark. In the Vivendi inquiry, the Commission majority dismissed Ofwat's view that, post-merger, Southern Water could no longer be used as a benchmark: ring-fencing of data, rather than autonomy, was the issue.

– *Impact of contracting out*—given that one of the detriments to the comparative regime when a comparator is lost is that company costs may become less independent of other companies, the Commission will examine the degree to which, pre-merger, the companies' costs are not independent—for example, when a regulated business contracts out operations to another water company. Yet, responding to the draft guidance, Ofwat argued that contracting out does not necessarily reduce a comparator's value—for example, the company still needs to take decisions on how to procure services over time.

– *Current efficiency level*—the Commission acknowledges that a merger affecting one of the more efficient companies in the industry is likely to be more problematic. This was relevant in the Vivendi case, as Southern Water was, at the time, the frontier company on OPEX efficiency. The Commission has taken on board Ofwat's concern that any company could be a future benchmark, not simply those that are currently most efficient. Nonetheless, arguably, what should matter is the probability of the company concerned reaching the frontier over a given time period.

– *Valuation methodology*—due to the difficulties in quantifying any detriment, the Commission will reach a qualitative assessment of the value of a comparator. Interestingly, Ofwat did not comment on this. The issue caused some controversy in the Vivendi case, with the Commission dismissing Ofwat's quantification approach, and Ofwat subsequently arguing that the Commission had misunderstood it. It remains to be seen whether Ofwat will continue with its valuation approach going forward.

– *Countervailing benefits*—having assessed any detriment, the Commission will also take account of benefits, such as economies of scale, 'higher quality or greater innovation' or 'improved coordination' arising from mergers. Any such benefits must, however, be a direct consequence of the merger. In terms of remedies, the Commission favours more immediate remedies (eg, price cuts) over less certain or less immediate ones.

Conclusions

A number of recent events indicate that water mergers are perhaps more likely now than they have been in the past. The Enterprise Act grants more independence to the Competition Commission, and differences between Ofwat and the Commission on mergers have surfaced since the Vivendi inquiry. The restrictions on mergers to preserve the comparative regime, and the historical success of the comparative regime, have, paradoxically, led to less need to maintain comparative competition to the same extent going forward. Debt-financed models do not necessarily sit easily with comparative competition, and significant convergence on costs and service levels across the industry means that comparisons are in any case less valuable than they once were.

[1] Ofwat (2004), 'Future Water and Sewerage Charges 2005–10: Final Determinations', December.
[2] This is the new threshold introduced under the Enterprise Act 2002. The threshold replaces a previous threshold based on minimum assets of £30m in value.
[3] This test under the Enterprise Act amends the Water Industry Act 1991.
[4] In 1996, the Monopolies and Mergers Commission (predecessor of the Competition Commission) recommended that the proposed takeovers of South West Water by Severn Trent and Wessex Water should be prohibited on the grounds that, given that there were ten WASCs, the detriment would be sufficient to prejudice Ofwat's ability to make comparisons, and there did not appear to be a realistic remedy (eg, large price reductions were not feasible) to counteract this detriment.
[5] Competition Commission (2002), 'Vivendi Water UK PLC and First Aqua (JVCo) Limited: A Report on the Proposed Merger'. Oxera acted as economic adviser to Vivendi in this case. Vivendi (now Veolia) owns three WOCs (all in the south of England): Three Valleys, Tendring Hundred and Folkestone & Dover. Southern Water is a WASC operating in the south of England.
[6] Stone & Webster (2004), 'Investigation into Evidence for Economies of Scale in the Water and Sewerage Industry in England and Wales', January.
[7] Department of Trade and Industry (2002), 'Vivendi/First Aqua Merger', press notice, part 1 of two parts, November. The eventual remedies provided for enhanced ring-fencing of Southern and additional publication of data for its Hampshire region.
[8] Instead, Vivendi decided to acquire only a 20% minority stake in Southern Water. See paras 6 and 7 of Office of Fair Trading (2003), 'Proposed Acquisition by Vivendi Water UK PLC of an Interest in First Aqua (JVCo) Limited. A Report under Section 125(4) of the Fair Trading Act 1973 of the Director General's Advice, Dated 19 February 2003, to the Secretary of State for Trade and Industry under Section 86(1) of the Act'.
[9] See Philip Fletcher (2003), 'Ofwat City Briefing 15 May 2003: Philip Fletcher's Presentation', speaker notes, May.
[10] Competition Commission (2004), 'Water Merger References: Competition Commission Guidelines', CC9, final guidance, December.
[11] Ofwat (2004), 'Competition Commission Consultation: Water Merger References', October.

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.co.uk

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