

Study Into the Pros and Cons of 'RCV Capping'**10 April 2007****1. Introduction**

Water UK has commissioned First Economics to undertake a short study into the treatment of capex overspending. Its purpose is two-fold:

- to evaluate the merits of Ofwat's existing approach compared to potential alternatives; and
- to make practical proposals for change where this is considered appropriate based on the analysis.

The report is structured into five parts:

- section 2 provides a brief survey of the rules that have been adopted in different sectors and compares these rules to the approach used by Ofwat in PR04;
- based on this review, section 3 constructs six alternative approaches that a regulator might take when dealing with capex overspending;
- section 4 puts forward a set of criteria which might be used to assess the merits of these options;
- section 5 provides our evaluation; and
- section 6 concludes.

2. Survey of alternative regulatory approaches to RCV capping**2.1 Ofwat's rules**

In all previous periodic reviews Ofwat has calculated companies' price limits using a standard 'building block' model of price setting. Because prices are set in advance for a five-year period, Ofwat is required to make assumptions about the level of capex that companies are likely to incur in each year of the control period, which in turn help to fix several of the main building blocks – the infrastructure renewals charge, current cost depreciation and the allowed return. Price limits remain fixed (and hence continue to reflect the assumed level of capex) for the full five years until the next periodic review is carried out even if a company subsequently spends more or less than Ofwat assumes.

At this periodic review, Ofwat adjusts companies' regulatory capital values (RCVs) to reflect the actual (rather than assumed) level of investment. However, in doing so it applies a cap to the RCV. This cap, which is applied separately for water and sewerage services, prevents companies from adding overspending to the RCV except where:

- the additional expenditure which a company has incurred falls within the scope of the Recognised Changes in Circumstances (RCCs) or Notified Items agreed with companies at the previous periodic review;
- the additional expenditure exceeds a limit of 10% of total service turnover for the five-year period; or
- companies are otherwise able to make a compelling case for inclusion in the RCV.

The fact that companies will reach the 10% only very rarely makes the process that Ofwat adopts to determine whether companies have made a compelling case for the inclusion of overspending in the RCV the key determinant of the allocation of risk between customers and shareholders. In PR04 it described its approach in the following terms:¹

At each periodic review we set outputs that a company must achieve during the five years. Companies may decide to incur additional investment for outputs over and above those reflected in price limits. This type of expenditure is known as supplementary investment.

Where companies have financed supplementary investment out of capital efficiencies we will not generally remove such investment from the RCV. To this extent the efficiency savings will therefore not be passed back to customers after five years in the form of lower bills. Instead customers benefit from improvements associated with the supplementary expenditure. However, we will not automatically include any investment over and above the level of investment assumed for the period 2000-05 (including agreed claims for logging up) in the RCV.

As in 1999, our approach envisages a three-stage test.

- If expenditure remains below the assumed level for each service (that is water and sewerage separately), then we will include it in the RCV.
- If expenditure for the service exceeds the assumed level, but the company's total expenditure remains below projections, then a company will need to submit a well reasoned case as to why we should include the additional expenditure in the RCV. This will also need to address the justification for the work and how the costs involved will stand scrutiny by comparative analysis.
- If expenditure exceeds the assumed level for the company as a whole, then the company will need to provide clear and incontrovertible evidence why we should include the additional expenditure in the RCV.

The onus will be on each company to provide sufficient evidence to support its case. This will normally include evidence that customers have been consulted, that the investment was a clear priority for them, and that they are prepared to pay higher bills to finance it. We recognise that in exceptional circumstances there may be instances where companies have spent more than we assumed when we set price limits but where we would not normally anticipate that customers would be consulted, for example investment to generate long-term cost savings. We will consider these matters on a case by case basis. We will require a much stronger case where actual expenditure exceed that assumed for the price limits at an overall company level.

2.2 Approaches adopted in other sectors

Other regulators generally split into two camps when dealing with companies that have spent more on capex than was assumed at the time of their most recent periodic review. In one group are Ofgem, Ofreg and the CAA in its regulation of NATS. These regulators have pre-determined and mechanistic rules for dealing with overspending, though which a fixed share of any capex overspend passes automatically into companies' RCVs (i.e. without review of the reasons for overspend). The specific rules are as follows:

- in its 2004 distribution review Ofgem introduced a new sliding-scale mechanism in which the proportion of overspending that must be absorbed by shareholders varies from company to company within a range of 20% to 40%. The precise figure is fixed according

¹ Ofwat (2003), Setting water and sewerage price limits for 2005-10: Framework and approach, Chapter 8.

to how much each company 'overbid' capex allowances during the preceding review – a scheme that Ofgem has argued will give companies an incentive to submit more accurate business plans in future;

- Ofgem took a similar stance in last year's transmission price control review, but on that occasion dispensed with its truth-telling incentives and instead proposed that all four transmission licensees should bear 25% of any capex overspends with the remaining 75% reflected automatically in an adjustment to companies' RCVs at the next periodic review;
- in its September 2006 Northern Ireland Electricity price control proposals Ofgem adopted the basic Ofgem approach from the transmission price control review, but set its percentages at 38.9% and 71.1% (proportions which it says are equivalent to asking NIE to absorb the depreciation of and return on additional capex for a fixed period of five years); and
- the CAA, when regulating NATS, allows 100% of capex overspend to be passed through to users (i.e. there is a full cost pass-through regime).

A second group of regulators, comprising Postcomm, the CAA in its regulation of airports and ORR, as well as the contractual provisions in the London Underground PPP, reserve greater discretion to determine how to treat capex overspends according to the particular circumstances that have led to the additional expenditures. The respective positions may be described as follows:

- Postcomm committed in its most recent periodic review of Royal Mail to allow overspending (plus financing costs) into the company's RCV at the next review provided that the additional expenditure has been efficiently incurred. In order to determine whether this is the case, it has said that it intends to review a sample of Royal Mail's completed capital projects and check whether additional expenditure was subjected to a rigorous internal authorisation and evaluation process, while assuming that growing competition from new entrants will automatically provide sufficient discipline on cost efficiency; and
- the CAA's policy in its regulation of airports is to adjust RCVs at each periodic review to reflect the actual rather than assumed level of capex. However, upward adjustments to the RCV in respect of overspending are only made if BAA can demonstrate that it has adopted best practice in the management of its investment programme and if it discharges obligations contained in an information and consultation agreement designed to facilitate effective consultation with airline users;
- ORR draws a distinction between work that was foreseen at the time of the most recent periodic review and the delivery of new obligations. Overspending that results from a failure to stick to budgets established during a periodic review is borne solely by Network Rail (i.e. without any recourse to future RCV adjustments), whereas new expenditure resulting from additional obligations to customers or government is allowed into Network Rail's RCV if the company can show that costs were incurred efficiently; and
- the London Underground PPP introduces a concept of a notional company adopting good industry practice and operating in an overall economic and efficient manner. If one of the infracos overspends it can claim additional remuneration only to the extent that the notional company would also have overspent. In practice this means that inefficiency is borne by the infracos' shareholders while efficiently incurred overspends are passed on to the customer.

2.3 Comparisons with Ofwat's approach

Ofwat's approach from previous periodic reviews appears closer to that of the regulators in the second group in that it has chosen not to specify in advance that a certain proportion of overspends will be added automatically to RCVs but is prepared to review the causes of overspending on a case-by-case basis. Alongside this, the 10% limit on RCV capping is a mechanistic rule which, although specific to the water sector, is more characteristic of regulators in the first group.

Taken at face value, Ofwat's approach could be described as one that is potentially quite accommodating of appropriately incurred expenditure but which affords compensation for inefficient spend only in exceptional circumstances. It is notable, in particular, that past policy statements contain a particular emphasis on cost minimisation and customer benefits. Central to this distinction are the concepts of a 'well reasoned case' and 'incontrovertible evidence' and it is here that the rules in the water industry are unique. While other regimes give reasonably clear guidance to companies on the question of how regulators will distinguish between 'good' and 'bad' capex, Ofwat's tests are much less well developed. This results in a framework which appears to rely more on *ex post* discretion than is generally seen elsewhere.

3. Candidate Options

The discussion in section 2 highlights that there are a number of credible alternatives to the approach that Ofwat has used in previous periodic reviews. That is not to say that they are necessarily superior to Ofwat's approach – the circumstances in each industry are different and it may be that there are good reasons why different rules should apply in different sectors. In order to structure the analysis of these alternatives, we set out below a brief description of the six main candidate rules that we can envisage Ofwat applying in PR09.

Option 1: All overspending to be borne by shareholders

The first option would be to disallow overspending from entering the RCV in any circumstances. Companies would be seen as entering into a fixed-price contract with customers which transfers both output risk and cost risk to shareholders for a period of five years. At the end of the five-year period, a regulator may adjust price limits to reflect changes in future level of expenditure but not past expenditure. There would be no exceptions to this rule.

Option 2: Ofwat's existing methodology

As noted in section 2, the existing regulatory framework in the water industry differs from option 1 in a number of ways. The RCCs and Notified Items mark out certain types of capex which the regulator is committed to allowing into the RCV at a future date (either through an interim determination or at the next periodic review). There is a cap of 10% of service turnover on the expenditure before Ofwat allows additional capex into the RCV, regardless of the cause of overspending. Ofwat has also indicated that it is prepared to let other expenditure below this cap into the RCV if companies can make a compelling case for inclusion.

Option 3: Ofwat's existing methodology accompanied by a detailed 'statement of principles'

One direction in which Ofwat's methodology might be developed would be for the regulator to signal more clearly what types of additional expenditure are to be borne by customers and what features capex must exhibit if it is to be allowed into the RCV. The Notified Items and RCCs provide one mechanism which would allow for greater pre-commitment. Alternatively, Ofwat could produce a statement of principles specifying how it would expect to deal, say, with

completely new projects that are believed to offer long-term benefits to customers, or with additions to project scope after the periodic review concludes. In doing so, it might also provide a more detailed checklist which companies must tick off before additional capex is allowed into the RCV.

Option 4: Ofwat's existing methodology accompanied by an ex ante approval mechanism

An alternative refinement would be to allow for within-period negotiations between Ofwat and a company. When supplementary investments are identified, and before work begins, a company might go to Ofwat and ask the regulator's approval for the investment. In effect, this would bring forward Ofwat's scrutiny of customer consultation, customer support and customer benefits. If Ofwat was satisfied that the case had been made, it would give an advance indication of its willingness, subject to an *ex post* evaluation of efficiency, to make an adjustment to the RCV at the next review and work would go ahead. If the company's arguments and evidence were inadequate, no such indication would be forthcoming and the company would know that if it did continue with the project it is highly likely that shareholders will bear the cost.

Option 5: 25:75 sharing

Options 2 to 4 involve a regulator setting out in advance how it would expect to use the discretion that it has at future periodic reviews. If Ofwat wanted to all but eliminate this discretion and provide companies with near certainty about its future approach, it might specify in advance that a fixed proportion of overspending will be borne by companies with a fixed proportion passing to customers. Ofgem's 25:75 rule – roughly equivalent to asking companies to bear the costs of capex overspending for five years – would be one option. Rather than attempt to partition overspending by cause, the sharing rule would apply automatically to all additional capex at the time of the next periodic review.

Option 6: Automatic pass-through of all overspending

A final option for consideration is the mirror image of option 1, in which all overspending (plus financing costs) is added automatically to companies' RCVs at each review via a cost pass-through arrangements. There would be no exceptions to this rule. Cost risk would be borne solely by customers, although output risk would remain with companies who would face penalties and enforcement action in the event of non-delivery.

Summary

The six options comprise a mix of binding rules and more flexible policy frameworks. Options 1, 5 and 6 are mechanistic in that Ofwat would be committing (as far as legally possible) to specific adjustments to the RCV at the next review. Options 2, 3 and 4 afford the regulator greater discretion and allow for a distinction between 'good' and 'bad' capex in accordance with the circumstances at the time.

The first key question this raises is whether it is better to have simplistic rules or discretion – i.e. is flexibility helpful or detrimental? If it is possible to resolve this point, there are relatively clear distinctions between the remaining three options in terms, on the one hand, of the appropriateness of the allocations between customer and shareholder and, on the other, the mechanism for categorising different types of capex.

4. Criteria

In order to choose between the six options, it is necessary to think about how and why they might ultimately benefit customers. The end objective can be put in terms of companies delivering the

outputs that customers want, and are willing to pay for, at the lowest possible price. A number of different factors come together to determine whether or not this objective is achieved and it therefore makes sense to consider the properties of each option in a structured way.

Our proposed criteria are in three parts. First, we examine the simplicity or complexity of each option by asking:

- how well does the chosen rule measure up the Better Regulation Task Force principles of **predictability and transparency**, and therefore minimise regulatory risk; and
- how great is the **administrative burden** that falls on both regulator and company?

Regulatory rules should ideally be simple to understand and simple to operate. Options that possess these characteristics would therefore be regarded as superior to options that do not.

Second, we consider the allocation of risk and the effect of each rule on companies' incentives and behaviour. Our questions are:

- is the **allocation of risk** optimal (i.e. is risk allocated to the party that is best able to manage it); and
- do the rules encourage companies to take on schemes which offer a net surplus of **benefits to customers/society** over costs, even if they were not specifically foreseen at the previous periodic review?

The answer to these questions help to reveal how well the interests of shareholders and customers are aligned. They will also show whether the higher cost of capital that results from the transfer of risk represents value for money.

The final set of criteria relate to constraints around the allocation of risk, namely:

- are the outcomes that the rules produce likely to remain **affordable** for customers; and
- do they in any way make it unduly difficult for companies to **finance their activities**?

Both questions emphasise that practical realities – i.e. affordability and financeability – have to be considered alongside more theoretical debates about risk allocation and incentives.

Taken together, we believe that these six questions ought to be sufficient to determine which of the candidates identified in section 3 could be put forward by Water UK and its members for possible implementation ahead of PR09. They should also help to identify ways in which the six alternatives could be refined and developed from the relatively raw descriptions we have given.

5. Evaluation

Predictability and transparency

Our ranking of the options against the first of the six criteria is as follows:

- 1= All overspending borne by shareholders
- 1= 25:75 sharing
- 1= Automatic pass-through of all overspending
- 4 Ofwat's existing methodology accompanied by an *ex ante* approval mechanism
- 5 Ofwat's existing methodology accompanied by a statement of principles
- 6 Ofwat's existing methodology

The hierarchy directly reflects the amount of flexibility that Ofwat retains going into PR09. The three top-ranked options are mechanistic rules that afford Ofwat no real choice over how it deals with capex overspending. Companies know with near certainty how much of any overspend they incur will go into the RCV and will be able to make informed choices within the five-year period about the level of investment that they undertake.

On grounds of predictability and transparency, mechanistic rules such as these are superior to rules in which Ofwat seeks to distinguish 'good' and 'bad' overspending. Because the circumstances which trigger overspending will differ from company to company, from year to year and even from project to project, it will usually be impossible for companies to know with *ex ante* certainty whether a particular piece of investment falls into the 'good' or 'bad' category. In regulatory regimes which are founded on such distinctions, it is reasonable to expect that such uncertainty to lead to a reluctance to invest, even in schemes which could *ex post* be considered by Ofwat as eligible for remuneration by customers.

There are nevertheless ways in which Ofwat can give some degree of *ex ante* certainty. A framework which allows for within-period dialogue and regulatory approval for the nature and scope of additional work that companies propose to carry out gives shareholders comfort that only schemes which are broadly acceptable to the regulator will be taken forward, even if there are no guarantees that the cost of that work will be considered efficient. At a more general level, a formal statement of principles ought to be capable of giving companies a clear guide as to when additional spending will and will not be deemed from the outset to be eligible for inclusion in the RCV. Both regimes can be expected to lead to companies making reasonably well-informed choices.

Ofwat's current framework ranks behind these options. Its key weakness is the opacity of the 'well reasoned case' and 'incontrovertible evidence' tests. Without clear points of reference to help companies determine whether they are likely to satisfy their regulator's demands, the tendency will be for companies to back away from discretionary investment. This is not the intended outcome – in effect, the unpredictability and lack of transparency come to overwhelm and dominate the more important 'good' and 'bad' distinction which Ofwat is trying to make.

Minimal administrative burden

The evaluation of the candidate rules against the second of our criteria has much in common with the preceding discussion. Mechanistic rules tend to be simple for both regulator and company to operate and hence impose the least burden; a regulator that wishes to retain discretion generates a certain amount of work to inform its decisions. Our rankings are as follows:

- 1= All overspending borne by shareholders
- 1= 25:75 sharing
- 1= Automatic pass-through of all overspending
- 4= Ofwat's existing methodology
- 4= Ofwat's existing methodology accompanied by a statement of principles
- 6 Ofwat's existing methodology accompanied by an *ex ante* approval mechanism

Only the order in positions 4 to 6 is different from our earlier hierarchy against the predictability and transparency criterion. Specifically, a regime in which companies seek case-by-case *ex ante*

project-specific guidance ranks last because of the need for frequent interaction between company and regulator.

Optimality in risk allocation

The guiding principle underpinning the third of our criteria is that risk should be allocated to the party that is able to manage it – either by reducing its likelihood, its size or both – and therefore best able to reduce its cost. Provided that management are able to influence the incidence of risk in a meaningful way, asking shareholders to bear risk (and compensating them for the risk that they bear through a higher rate of return) creates powerful incentives on management to minimise expenditure. On the flip side, asking companies to bear risk that they cannot manage represents poor value for money because the higher cost of capital cannot be said to be offset by potential efficiencies.

Our evaluation against this criterion is as follows:

- 1= Ofwat's existing methodology
- 1= Ofwat's existing methodology accompanied by a statement of principles
- 1= Ofwat's existing methodology accompanied by an *ex ante* approval mechanism
- 4 All overspending borne by shareholders
- 5 25:75 sharing
- 6 Automatic pass-through of all overspending

Compared to the previous two criteria, the above hierarchy ranks the mechanistic rules and the more discretionary regulatory approaches in reverse order. This is because simple rules by their very nature are very blunt – all types of capex overspending are treated the same way regardless of the underlying cause. The more detailed rules, by contrast, allow for a distinction between 'good' and 'bad' capex, with companies paid by customers in full for 'good' capex and paid nothing at all when they undertake 'bad' capex.

We have assumed that Ofwat would want to use the opportunity to distinguish 'good' and 'bad' capex in such a way as to bring about an optimal allocation of risk between customers and shareholders. This is a fairly bold assumption, but one that we believe is reasonable given other characteristics of the existing regulatory regime. The ideal framework in our minds is one where customers generally take the risk associated with the emergence of new outputs or material external shocks, but companies typically take cost and scope risk. Ofwat's existing methodology, with or without the refinements we have identified, is at least potentially capable of achieving this sort of risk allocation (and, indeed, developing into quite sophisticated risk-sharing arrangements according to the specific nature of the risks that companies face at any point in time).

The simpler sharing rules are not. The order of positions 4, 5 and 6 reflect a judgment from us that companies are overall better placed than customers to manage most types of capex risk. A regime in which companies take all risk therefore ranks better than an option in which companies take 25% of overspending which in turn ranks better than an option in which companies take no risk at all. However, the indiscriminate nature of the risk allocation remains a significant weakness in all three cases.

Maximisation of customer benefits

As with risk allocation, the evaluation of the candidate regulatory rules against the fourth of our criteria reflects to some extent the ability to distinguish between 'good' and 'bad' capex. However, it must also recognise the way in which companies understand and interpret the regulator's position – previously unforeseen schemes which offer a net benefit to customers will ultimately only be taken forward if companies believe that they will be remunerated for the extra investment.

Our rankings are as follows:

- 1 Automatic pass-through of all overspending
- 2 Ofwat's existing methodology accompanied by an *ex ante* approval mechanism
- 3= Ofwat's existing methodology accompanied by a statement of principles
- 3= 25:75 sharing
- 5 Ofwat's existing methodology
- 6 All overspending borne by shareholders

The top- and bottom-ranked options are relatively easy to identify. At one end of the scale, a pass-through system ensures that companies are paid in full for whatever work they undertake and would appear to offer an impediment-free route to all manner of benefit-enhancing investments. On the other end, a regime in which companies bear overspend in full gives companies no incentive to invest in schemes which were not included in their most recent determination, even if they offer very large benefits to customers.

Between these two ends of the spectrum it is much more difficult to rank the remaining options. At first sight, a 25:75 sharing rule would appear to contain a general disincentive towards new investment since companies get paid for only 75% of the costs that they incur. However, it may be that there are other pay-offs to companies in the form of, say, lower opex, improved performance or an enhanced reputation, which make schemes worthwhile even when the eventual adjustment to the RCV only passes a proportion of costs on to the customer. In these circumstances 25:75 sharing will deter some investment, but leave companies with a sense that other schemes are worthwhile.

The incentive properties of the three remaining options depend on the certainty that companies have about what happens at future reviews. Accordingly, the options must be ranked in line with their rankings under the predictability and transparency criterion. What is then less clear is where this group of options as a whole sit relative to the 25:75 sharing rule. Does the regulator's ability to distinguish between 'good' and 'bad' investment on a case-by-case basis offer sufficient benefit to customers to outweigh the uncertainty that regulatory discretion creates in the mind of companies?

Our tentative view is that the *ex ante* uncertainty created by Ofwat's existing rules acts as a reasonably strong disincentive against investment. When faced with the possibility of being paid nothing for discretionary investment, we would expect many companies to be respond by choosing not to take on discretionary investment at all. Early dialogue with Ofwat followed by some sort of regulatory commitment would be the best way to reduce uncertainty. The development of a more detailed statement of principles would also help companies and customers, but it is not at all clear to us that companies would respond by taking forward 'good'

schemes which would be considered value destroying in a 25:75 sharing regime. It could be said that this depends on whether companies believe the chance of getting additional work into the RCV is more or less than 75%, which is something we cannot really take a view on. It is for this reason that the two options have an equal ranking in the above list.

Affordability

Constraints on the absolute level of customers' bills or the rate at which bills can increase over time are likely to be a key feature of PR09. Against this backdrop, it is important that the regulatory treatment of capex respects affordability constraints and does not lead to a situation in which the implicit ceiling on bills is breached. Such considerations lead to the following rankings:

- 1 All overspending borne by shareholders
- 2= Ofwat's existing methodology
- 2= Ofwat's existing methodology accompanied by a statement of principles
- 2= Ofwat's existing methodology accompanied by an *ex ante* approval mechanism
- 5 25:75 sharing
- 6 Automatic pass-through of all overspending

The simplest way to satisfy affordability constraints is for a regulator to announce that companies' actual expenditure will not be allowed to affect future price limits. The simplest way to breach them is to permit out-turn capex to be passed on to customers in full. Within these two extremes there is a clear distinction between the more discretionary approaches and the 25:75 sharing rule in that can Ofwat loses a degree of control over the scale of companies' capex programme when it permits automatic adjustments to companies' RCVs.

This is particularly relevant when there is a process for Ofwat to review companies' capital plans every five years. If during this review there are stand-alone schemes that Ofwat decides companies should not carry out, that should generally be the end of the matter. It should not be the case that a company finds it worthwhile to undertake the investments anyway (because the regulatory regime automatically permits 75% of the cost of even 'bad' schemes to pass into the RCV). Similarly, there should not be any incentive during the periodic review process for companies to hide investments which management know have only a limited chance of obtaining regulatory approval.

The absence of hard budget constraints in the 25:75 sharing option is, in our view, a fundamental weakness, particularly when there are likely to be quite a number of schemes at any point in time that offer whole-life cost savings and which have a positive net present value even when companies recover only 75% of the upfront capital cost. If it is considered appropriate and legitimate for regulators to make trade-offs between whole-life cost benefits and affordability constraints during periodic reviews, it is appropriate that the regulator's judgment is final.

Financeability

The Ofwat definition of financeability is that companies should be able to raise finance in the capital markets on reasonable terms. Our contention would be that all six of our candidate options satisfy this test provided that Ofwat allows a return on investment which is commensurate with the risk that companies bear.

In this regard it is important to note that a company’s cost of capital will not be the same in all options. As a rule of thumb, the order in which each option was presented in section 3 represents a continuum in which risk borne by investors gradually decreases with each successive option. It follows that the cost of capital becomes successively lower the further down the list of candidate options one goes.

The implications that this has for financeability are two-fold. First, a lower cost of capital implies lower overall revenues, profits and cashflows, potentially reducing key interest cover ratios. Second, lower exposure to capex overspending should, other things being equal, lead lenders and rating agencies to expect lower levels of cover at any given credit rating. Broadly speaking, these two effects can be expected to offset each other leaving companies financeable in all six of the options we have presented.

This suggests that financeability is not a criterion that can be used to distinguish the different regulatory rules.

6. Conclusions

The preceding evaluation demonstrates that there isn’t one set of regulatory rules that stand out as being eminently superior to other potential options. Different candidate rules tend to score well against different criteria. A summary of the analysis is presented in table 1:

Table 1: Summary of rankings

	Predictability and transparency	Administrative burden	Optimality of risk allocation	Customer benefits	Affordability	Financeability
Option 1	1=	1=	4	6	1	–
Option 2	6	4=	1=	5	2=	–
Option 3	5	4=	1=	3=	2=	–
Option 4	4	6	1=	2	2=	–
Option 5	1=	1=	5	3=	5	–
Option 6	1=	1=	6	1	6	–

The conclusions that we draw from the discussion are as follows:

- the two end points in the spectrum – either no allowance (option 1) or full pass-through (option 6) for capex overspending – are not really credible propositions. The former suffers from its failure to give any incentive to companies to undertake new projects which benefit customers, the latter from the sub-optimal risk allocation and lack of any sort of hard budget constraint;
- there are grounds for companies to argue that Ofwat’s existing rules (option 2) can be improved without compromising the underlying allocation of risk or any other point of regulatory principle. Our evaluation suggests that an *ex ante* approval process (option 4) or the production of a more detailed statement of principles containing real clarity about Ofwat’s *ex post* review process (option 3) could offer major benefits to customers without imposing any major detriments; and
- it is an open question whether a far more simple sharing of overspends (option 5) is better still. At one level, blunt and indiscriminate sharing suffers from the sub-optimality of the risk allocation and, to a lesser extent, concerns about affordability. However, the simplicity,

transparency and predictability of the approach offers much greater certainty to companies and could arguably be said to produce better incentives and better outcomes.

The second and third of these points merit a much more detailed explanation.

The starting point for our conclusions is the observations that we made about the transparency and predictability of Ofwat's existing rules. By summarising its approach to capex overspending in two or three paragraphs, Ofwat has allowed uncertainty to develop in relation to the type of schemes that it is willing to consider for inclusion in the RCV and the tests that it will apply in order to determine whether the costs claimed by companies have been efficiently incurred. This is particularly an issue for shareholders and lenders who tend to look at Ofwat's policy statements from afar. However, we have also detected a distinct lack of clarity in the minds of companies' managements during the course of this study, as well as different perceptions from different companies in the sector as to what a 'well-reasoned case' or 'incontrovertible evidence' might look like.

This is a concern because uncertainty deters investment. Taken at face value, Ofwat's past statements suggest that it is content for companies to undertake additional investment where schemes are supported by customers and/or offer material long-term benefits. However, almost all companies have told us that they would not voluntarily spend beyond their capex allowances because of the uncertainty about how additional investment will be treated at PR09. It therefore appears to us that the existing rules are *de facto* leading to the same outcomes as a rule which offers no remuneration for additional capex.

One way for Ofwat to restore what we assume is its intended allocation of risk would be for it to establish a system in which companies can go to the regulator for *ex ante* approval of additional expenditure. The key issue is how formal or informal this dialogue is. – We recognise that no party benefits if companies are perpetually in a form of interim review and for this reason we do not advocate a process which requires Ofwat to sign off individual capital projects.

A statement of principles from Ofwat that develops the existing 2-3 paragraph description of its approach to capex overspending, combined with an open door policy towards discussion about the application of those principles to specific schemes, is, however, a perfectly viable proposition. The more that Ofwat can distinguish 'good' and 'bad' capex upfront, the more companies will have an incentive to take forward 'good' schemes even if they haven't been included in the last regulatory determination. This predictability ultimately benefits customers if it results in work being undertaken that currently companies would ignore completely or, at best, delay until future control periods.

To be clear on this point, we have in mind that a statement of principles would comprise a number of elements:

- a general categorisation of specific types of capex under 'good' and 'bad' headings, using specific examples that might be pertinent to companies at that time;
- further detail on the way in which Ofwat expects companies to engage with customers and so demonstrate customer support for additional investment;
- insights into what a 'well reasoned case' and 'incontrovertible evidence' might look like, especially as regard the tests that it would expect companies' submissions to meet; and
- a detailed description of the way in which Ofwat would expect to review the efficiency with which work has been carried out.

There is, in our view, potential for such a statement to bring significant clarity *ex ante* to what at the moment is a very unclear *ex post* process of evaluation.

We are realistic enough, however, to accept that even a very long and detailed statement of principles cannot give companies complete certainty about the way in which investments will be considered at future reviews. Every project is different and a set of generic policies will never deal fully with the specifics of individual schemes. Moreover, there will always be some unpredictability in a regime where there is a temptation to look with the benefit of hindsight at completed investments. Given this inherent uncertainty, we can understand why other regulators have considered very simple sharing rules to be attractive. By taking away the regulator's discretion, sharing rules leave companies in a position where they know exactly how capex will be treated and can factor these rules directly into their investment appraisal.

This forces us to compare two quite different regimes:

- one that strives to put in place an optimal allocation of risk and create incentives for companies to take forward only 'good' schemes, but which may not actually be practically achievable; and
- one that can leaves companies undertaking 'good' capex out of pocket while at the same time part rewarding 'bad' investment, but which gives companies certainty rather than force them to constantly second guess the regulator.

The choice between the two turns ultimately on what degree of uncertainty the first approach leaves in the mind of companies. If it sizeable, the desire to retain a distinction between 'good' and 'bad' capex could mean that very few 'good' investments are actually undertaken. If, however, uncertainty is relatively limited, regulation will act as a deterrent to relatively few 'good' schemes (and a strong deterrent to almost all 'bad' schemes).

Without seeing and assessing the content of the statement of principles that we have suggested Ofwat might produce, it is impossible for us to recommend one type of regulatory approach over the other. We would, however, describe the two alternatives in terms of first best and second best. That is to say that, in theory, a continued distinction between 'good' and 'bad' capex offers the better deal for customers. However, we can see why this first best approach might not be achievable and why second best rules which at least have the advantage of certainty might, in practice, be more attractive.