

# Retail cost assessment review of issues



# Retail cost assessment – review of issues

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# Purpose of this paper

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'In 'Future price limits- statement of principles' Ofwat committed that for the 2014 price review separate wholesale and retail price controls will be set. This will include a retail price control for customers who are likely to remain ineligible to choose their supplier (non-contestable customers) based on the average cost to serve these customers. This document describes some of the issues related to this approach.

In the Statement, Ofwat said that an average cost to serve approach would be used to regulate the retail prices in the non-contestable market, as a proxy for the costs of an efficient retailer. They noted that they expect their approach to evolve over time as we learn more about true efficient costs.

In July 2012 a consultation on retail controls for the 2014 price review was published by Ofwat. The consultation document considers some of the options associated with developing an average cost to serve approach for the price control for the uncontestable retail market.

This document is the result of a collaboration between United Utilities Water and Ofwat, based on a desk review exercise and a workshop discussion with industry stakeholders held at Ofwat's offices in July 2012. It describes some of the issues related to the implementation of an average cost to serve approach to the retail cost assessment for uncontestable customers. It reviews some of the implications of this change in approach to cost assessment and considers a range of options for implementing the retail price control for these non-contestable customers. In particular, this paper covers five areas:

- a. Arithmetic issues;
- b. Adjustments;
- c. Incentive effects;
- d. Transition; and
- e. Cost allocation.

The goal of this paper is to be explorative, helping to inform the debate as the industry and others respond to Ofwat's consultation on the retail price control, and in advance of Ofwat's detailed price control methodology consultation later in the year.

Whilst this paper is exploring the implications of Ofwat's proposed change of approach, it will not seek to comment on the validity of the move to an average cost assessment itself, but rather seek to draw out some of the consequences.

This paper will further not review whether or not non-contestable retail costs should continue to be indexed by RPI inflation. This issue is a broader one of price control application, and is not dealt with in this paper.



# Key Issues

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This report reviews some of the implications of changing the approach to cost assessment by moving to an “average cost to serve” approach for non-contestable customers. In particular, the report considers some of the issues that may arise in developing a methodology for average cost to serve, and assesses a range of options for implementing this approach for non-contestable customers.

## Average cost to serve arithmetic issues (Chapter 3)

There are a suite of different approaches to calculating the average cost to serve. This report reviews the different approaches to calculating the “average”, including:

- a. Issues associated with the calculation of costs (i.e. the “numerator”);
- b. The basis for the average in terms of the number of services (i.e. the “denominator”); and
- c. Whether the average should be calculated as a weighted average or an un-weighted average.

## Adjustments to the average cost to serve (Chapter 4)

Where companies operate in comparable environments, they will have equivalent scope to respond to the incentives applied by a price control based on the average cost to serve. However, there may be certain factors which impact companies’ retail costs as a result of their specific environment. Therefore, it may be necessary to make adjustments in some form to take account of such factors in order to improve its ability to proxy efficient retail costs. The report:

- a. Identifies principles that could be applied by Ofwat in assessing whether to make adjustment relative to the average cost to serve;
- b. Considers how adjustments could be applied; and
- c. Provides examples highlighting how the principles for making adjustments could be applied.

## Incentive effects (Chapter 5)

It is possible that some elements of the retail price control proposals for non-contestable customers could have unintended consequences elsewhere across both the retail and

wholesale price controls. In particular, moving to an average cost to serve approach could create disincentives to engage in certain retailing activities.

The report seeks to identify some potential regulatory remedies that could be applied to the retail control to alleviate any disincentives created by the average cost to serve approach. The report assesses potential disincentive affects and remedies for the following activities:

- a. Water efficiency;
- b. Social tariffs; and
- c. Customer service.

## Transition assumptions (Chapter 6)

Moving to an average cost to serve approach could result in a sudden reduction in the cost allowance for companies above the average. This chapter reviews the impact of using a glide-path (or not).

## Cost allocation (Chapter 7)

Differences between companies in their interpretation and application of regulatory guidance could result in different reporting of costs and revenues. If this information is then used as the basis for setting prices, this could lead to an uneven assessment of companies’ required costs.

This paper highlights in particular the impact of potential differences in cost allocation methods and income/bad debt accounting between companies on the price review retail cost assessment. It identifies the key areas of cost where differences may occur and highlights a range of possible solutions to these concerns.

## Objectives for a retail price control

In undertaking this work it is important to establish a framework to consider the various options and approaches that could be taken in each of these areas. This should be based around what Ofwat wishes to achieve from the retail price control, reflecting its underlying statutory duties, the statutory guidance that it receives from the UK and Welsh Government, its strategy and its recently published Statement of Principles. Based on these sources, in Ofwat's more recent consultation into the retail price control, the following objectives were stated as being pertinent to the retail price control:

**To incentivise more efficient use of water** by setting price controls in a way that maximises the opportunities for demand management.

**To encourage better customer-facing outcomes** by making sure that

- those customers that can choose their supplier enjoy an effective market place for these services, maximising the benefits of that market for economic, social and environmental goals; and
- customers that cannot choose their supplier receive a good service at a fair price, which is protected through regulation.

**To continue to enable efficient investment** in the sectors by setting price controls in ways that continue to give stability and predictability to investors.

**To help to mitigate and adapt to climate change.**

**To use a risk-based approach to set price controls** that are simple and reduce the burden of the price control process while also giving companies scope to innovate.

Extract from "**Consultation on retail controls for the 2014 price review**"

In discussion with stakeholders at a recent workshop on retail price controls held on the 16th of July the following objectives were developed.

- **Customer impact** – in principle, non-contestable customers (predominantly households) should see benefits from the new approach and should not be adversely affected by the change. For the upcoming price control, this should be applied to customers in general rather than to individual customers. A major change in approach to a price control, such as this one, is likely to cause some degree of incidence effects; these should be minimised, but it will probably be impossible to assume that no individual customer will be worse off in the short term. In the long term, if the average cost to serve incentive is successful in reducing costs across the industry, then all customers may benefit individually.

- **Company impact** – the cost assumptions arising from the average cost to serve assessment should be achievable by companies and ensure that the retail function is financeable. This should apply both at a total level over the duration of the control, and in how quickly companies are expected to achieve the assumed cost in any given year.
- **Consistency** – the application of an average cost assessment presupposes that the cost of delivering retail services is broadly the same across all companies. As such, the cost assessment should ensure that the treatment of company costs is consistent, in three ways:
  - That underlying cost allowances should be similar (as a medium term goal), to reflect that retail costs should be similar across all companies, for the same level of service (beyond adjustments for material factors outside company control).
  - That company information used to assess costs should be consistent and comparable to ensure that variances between company costs result primarily from efficiency and differences in performance, not merely cost allocation or accounting differences.
  - Any differences between companies that are recognised within the cost assessment should only result from differences in service levels (suitably supported by customers), or adjustments aimed at making companies more comparable within the retail cost assessment.
- **Effective Incentives** – the application of an average cost to serve should ensure that companies retain sufficient incentives to improve efficiency.
- **Transparency** – the cost assessment process and the impact of any adjustments made (or judgement applied) should be replicable by a third party. As a corollary of this, the cost assessment should be reasonably simple, and should be subject to a minimal number of adjustments. Further, any adjustments should themselves be subject to a rigorous assessment to ensure they are properly justified. This should also be consistent with Ofwat's ambition to reduce the regulatory burden.

It is unlikely that any single proposal will simultaneously satisfy all of these objectives. As such it will be necessary to balance them in the round. At the retail workshop, there was some discussion regarding how these objectives should be prioritised, in order to account for circumstances in which the objectives are in conflict. It was generally considered that customer impact should be given primacy. It was also suggested that such objectives should also apply consistently to the wholesale price control.

At various points in this document we refer to these objectives in order to consider and evaluate different approaches and issues.

# Average cost to serve arithmetic issues

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This chapter examines the arithmetic issues associated with calculating the average cost to serve. First, it looks at the construction of the numerator – in this case, the total amount of retail costs included in the calculation. Second, it looks at the construction of the denominator (i.e. how services to customers should be counted). Finally, it examines the arguments for calculation of the average on a weighted or unweighted basis.

Ofwat's recent publication "**Consultation on retail controls for the 2014 price review**" examined many of these arithmetic issues in some detail. As such this paper seeks to build on the points identified in that document.

## Numerator

The average cost to serve will be sensitive to the definition of eligible costs which comprise the numerator. There are a number of factors which determine this:

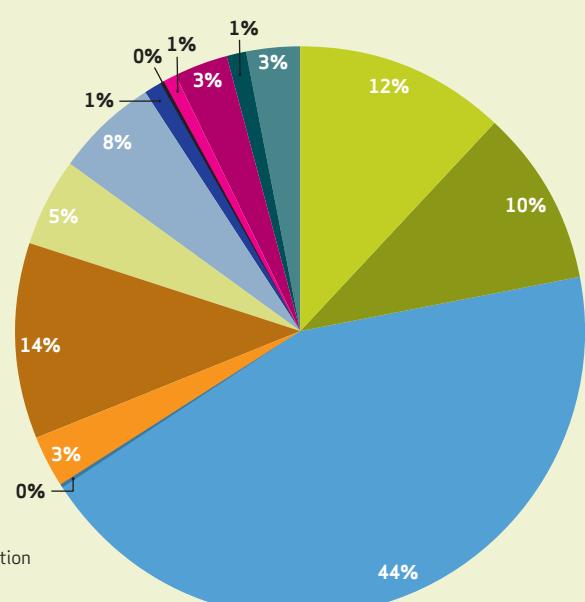
- Which activities fall into the scope of the retail control?
- Which cost elements should be included / excluded?
- Should bad debt costs be treated differently?
- Should metered customers be treated separately?
- How should capital expenditure be treated in the context of the retail price control?

## Which activities fall into the scope of the retail control?

The split of activities between wholesale and retail is outside the scope of this report. However, the definition of retail services is currently being consulted upon by Ofwat and once this is established, it will determine the range of activities for which costs should be recovered through the retail price control (and whether this varies between the contestable and non-contestable customer groups). The current definition of retail services, as defined in companies' published regulatory accounts, represents a broad definition of retail services, these are set out here.

From the chart it is worth noting that the major elements of cost (those greater than 5%) are likely to be doubtful debts (44%), customer enquiries (non-network 11%, network 5%), billing and payment handling (12%) and meter reading (6%). Similarly, it is worth noting that the vast majority of retail costs are paid through operating expenditure (82% versus 18% of capital expenditure).

**Figure 1: Overview of direct retail costs**  
(source: Table 21B JR 2010-11)



- Billing & payment handling
- Debt management
- Doubtful debts
- Vulnerable customer schemes
- Other direct costs & charitable trust donations
- Non-network customer enquiries
- Network customer enquiries

- Meter reading
- Meter maintenance/installation
- Disconnections
- Water efficiency
- Customer leaks
- Trade effluent support
- Developer services

## Which cost elements should be included/excluded?

Once the relevant activities have been determined, allowable costs should be defined by the activities set out in the Water Industry Act, company licences, and regulatory accounting guidelines. However, Ofwat may choose to take some cost elements outside of the average cost to serve calculation or treat them differently. This may be desirable if it could be proved that a cost category would be inappropriately incentivised by only allowing the industry average. It is also possible that some cost categories might require an adjustment if they meet certain criteria (see chapter 4), which might be an alternative to exclusion from the average cost to serve.

Several factors regarding cost definition are subject to some degree of interpretation and judgement. This is particularly the case when costs are shared, either between retail and wholesale activities or between appointed and non-appointed businesses. Chapter 7 of this report considers the impact of cost allocations in more detail, with particular reference to the issues arising from setting the price control based on a cross-industry assessment of costs.

## Should bad debt costs be treated differently?

One of the most significant costs of retailing is the cost of bad debt. Bad debt is different from other retail costs in four main respects which are worthy of particular consideration.

- Bad debt is not incurred as an expended cost. Rather, it represents the absence of collected income. As such it has the potential for greater variation between companies due to simple differences in income accounting (this is discussed further in chapter 7).
- Intuitively, one might expect bad debt to be related to a company's average bill, as the higher the bill, the higher the amount that would need to be written off. As such, it may be desirable to recognise differences in average bill when assessing the average cost to serve. Without such recognition, companies with lower than average bills may find it easier to achieve retail costs below the industry average than companies with higher than average bills, even if their debt management operations were equally efficient.
- Among other factors, the ban on domestic disconnections may also have a significant impact on levels of bad debt. This effect was recognised by Ofwat in interim determinations that took place during AMP3, and underpinned a notified item on bad debt at PR99 and PR04.
- Finally, for each company, the prevalence of households with bad debt may be influenced by the socio-economic characteristics of their customer base. Accordingly, companies with a higher proportion of customers from the poorest socio-economic groups will find it more difficult to achieve retail costs below the industry average than companies with a more favourable customer socio-economic profile, even if their debt management operations were equally efficient. The impact of the socio-economic profile of the customer base has previously been recognised by Ofwat, with "special factors" applied to some companies in previous price reviews, in order to adjust the assessed level of company operating cost efficiency.

Naturally there are a number of different actions that companies' management teams can take to manage bad debt and, regardless of the issues described, economic regulation should seek to reward those management teams who manage the factors within their control most effectively in order to keep bad debt costs down. However, where factors can be proved to be outside of management's control and do have a material impact on that company's retail costs then there is a strong case for treating those costs differently. Therefore, if bad debt is to be included in the average cost assessment, it may be necessary to take additional measures to ensure that the outcome of the retail cost assessment is fair for consumers in different regions, and that companies are treated equitably. These issues are discussed in more detail in chapters 4 and 5.

## Should metered customers be treated separately?

Evidence suggests that metered and unmetered customers have different typical costs to serve and this is already reflected in Ofwat's tariff differential. This is an issue when developing an average cost to serve due to the differing levels of household meter penetration across the industry. As such, companies with high levels of meter penetration will therefore be worse off if the industry average non-contestable retail cost is assessed in total. Further, this may act as an unintended disincentive for retailers to invest in metering.

There are number of ways that differences in meter penetration could be accounted for, for example Ofwat could apply an adjustment factor (see chapter 4). Another possible solution to this issue would be to assess two costs to serve, one each for metered and unmetered customers. The appropriate solution would need to be mindful of the potential economies of scale and scope resulting from higher levels of metering. The definition of retail would also have an impact on the size of any difference in cost to serve between metered and unmetered customers.

## How should capital expenditure be treated in the context of the retail price control?

Whilst Ofwat has stated that all historic assets represented by the RCV will be transferred to the wholesale price control, it has not yet determined how new capital expenditure within retail (e.g. billing systems, telephony etc.) will be accounted for within the retail cost assessment.

Retail activities are less dependent on capital expenditure than wholesale activities. According to company accounting separation data for 2010/11, less than 20% of retail activity costs are capital related, whereas 50% of wholesale costs are capital related. However, retailers of water in the non-contestable segment will still incur some capital expenditure. For example, retailing activities will require periodic investment in billing systems and, depending upon decisions associated with the definition of retail services, new metering investments. The lives of these assets will typically be around 10 years and may therefore extend beyond the price control period in which upfront investments are made.

Given that such capital expenditure will be necessary for the retailer to maintain service to customers, some account needs to taken of it in the retail cost assessment (whether or not as part of the average cost calculation). There will be many ways for Ofwat to reflect retail capex within the price control, such as:

- Include capex within the retail average cost assessment, and use the company's current cost depreciation (CCD) charge. This would only remunerate industry average CCD, and would therefore be a departure from historic approach to depreciation, which focussed on company forecast CCD.
- Include within the retail average cost assessment, using an average of historic and expected capital expenditure levels. This would remove the application of company specific accounting lives that would influence a cost assumption utilising CCD.
- Separate capital expenditure remuneration from the retail average cost to serve, and allow forecast current cost depreciation in the price control. This approach would be analogous to the arrangements under the current price control.
- Include a margin per customer within retail prices to remunerate any new investment in retail capital assets. This could be informed by modelling what capital costs a typical retailer would be expected to incur in the long run, perhaps informed by retailing in other utility sectors.

It should also be recognised that companies may have different approaches (e.g. between leasing and buying) that may inherently result in different splits between opex and capex. Therefore, the approach to remunerating capex should encourage companies to make efficient decisions whilst not disincentivising such alternative approaches.

Finally, some capital expenditure may be "enhancement" rather than maintenance (e.g. free meter options) and as such, allowance by reference to an average may not appropriately incentivise the efficient management of such activities. This is because, it may be viewed by the company as reducing its efficiency relative to the industry average, and hence conflict with the objective to maintain effective incentives (this is explored further in chapter 5).

## Denominator definition

In calculating the average cost to serve, an appropriate number of units need to be identified to divide costs by in order to arrive at the average unit rate. Ofwat's retail consultation sets out four options for the definition of the denominator:

- **number of households billed for water** – this would not account for the cost of serving sewerage customers, and also would not take into account the varying proportion of sewerage only customers supplied by companies. Ofwat suggests that this method may under-compensate companies with many sewerage customers.
- **two different average costs to serve** – one for water only companies, and one for water and sewerage companies. This recognises that the average retail cost of delivering one service is likely to differ from the average cost of delivering two services. However, this approach does not recognise that some companies have many more sewerage customers than water customers.
- **'households billed for water' plus 'households billed for sewerage'** – this approach appears to better reflect the cost of retailing for a number of services provided to customers. However, it may not adequately recognise the economies of scope that can result from both water and sewerage services being supplied by the same company.
- **'households billed for water' plus 'households billed for sewerage' plus an adjustment factor** – this would be similar to the previous option, but with the application of an adjustment factor, acting to reduce the cost to serve assessment for companies based on the number of combined service customers they serve.

The latter two options seem to better reflect the quantity of retail services provided. In considering whether or not the additional adjustment factor suggested in the fourth option is appropriate, it is worth noting that many companies serving customers for a single service have acted to work together to achieve the same economies of scope as companies that provide both services. This occurs in one of two ways:

- In some cases, the water operator provides all retail services and acts on behalf of the sewerage service operator. In this situation, the sewerage service provider acts only to supply the wholesale sewerage service, whilst the water provider provides both the water wholesale service and the combined retail service.
- Elsewhere, some customers receive a single bill via a joint venture created between the operators. In this case, each of the water and sewerage service companies provide wholesale services, whilst a separate entity provides the retail service.

In implementing a price control based on the average cost to serve, the challenge is to define a single denominator that continues to ensure the financeability of the appointed business, whilst at the same time incentivising efficiency within each company's retail operations. It is also important to set an equitable price control and ensure that where there are factors which are outside of the control of company management and give rise to any material benefit or detriment, these are reflected in the methodology.

## Weighted or un-weighted

In calculating the average, one could simply take total industry costs, and divide by the total industry denominator. In this case, the outcome would be "weighted" by the fact that the costs of larger companies would contribute more to the average than the costs of smaller companies.

Alternatively, one could calculate the unit cost to serve for each company separately, and then take an average of those unit costs to determine the industry average. Such an approach would be "unweighted", with each individual company contributing an equal amount to the overall industry average.

A weighted approach would more accurately represent overall industry costs, and would also be independent of industry structure. If companies merged or demerged then the average would remain the same.

However, an unweighted approach would ensure that the success of each individual management team at reducing retail costs would be treated equally, and customers would not be dependent on large companies reducing retail costs before there was any significant movement in the average cost to serve. An unweighted approach is also (broadly) more comparable with Ofwat's historic approach to efficiency, whereby the econometric cost models treated each data point (i.e. each company) equally, in that company size was not a significant factor in influencing the assessed cost function. Albeit that the historic approach was based on an entirely different cost function.

# Adjustments to the average cost to serve

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Where companies operate in comparable environments, they will have equivalent scope to respond to the incentives applied by a price control based on the average cost to serve. However, whilst retail services are generally far less likely to be affected by geographically specific factors than wholesale or network services, the environments in which companies operate are not homogeneous and this gives rise to a small number of factors which impact companies' retail costs. Ofwat will need to ascertain whether the retail cost assessment should be modified to take account of such factors, or whether the impact is insufficient to warrant an adjustment.

Whether or not an adjustment is appropriate is primarily a matter of consistency, as it is desirable to ensure that the retail cost assessment compares companies on an equivalent basis. As such it is necessary to understand whether there is any impact from differences in the regional operating environment of companies, and to make any adjustments that would improve the consistency and comparability of cost assessments between companies. Furthermore, more substantial factors may actually work against the customer impact and company impact objectives, if simplistic application of the average cost to serve passes an unduly high cost to customers in one area (or conversely, insufficient cost to enable a company to finance their functions).

In the past, Ofwat has dealt with such issues via claims for company specific adjustments (otherwise known as "special factors"), which were applied as cost adjustments to the relative efficiency analysis for operating costs.

As Ofwat moves towards an average cost assessment for non-contestable retail costs, it seems relevant to ask:

- What criteria should be used to assess potential adjustments, to determine whether they are justified and sufficiently material?
- Where they are justified and material, how should adjustments be assessed and applied? In particular, is the most appropriate remedy a simple cost adjustment to the average cost to serve, or is there a more appropriate solution given the need to avoid adverse incentives on the wider price control framework?

We deal with the first of these questions in this section. The second question is considered in part here, and further considered in Section 6 in the event that a simple cost adjustment would result in an adverse impact on incentives.

## Adjustment Criteria

When assessing proposals for adjustments to the calculation of the average retail cost, there are numerous dimensions to consider. Some form of the following criteria could be used by Ofwat as an appropriate test for the need to make an adjustment:

- a. **Retail impact** – the factor should predominantly have an impact on retail costs.
- b. **Cannot be reduced to an immaterial level by efficient management action** – the factor should be outside of management control entirely (i.e. result from sources exogenous to the retail function of the company).
- c. **Evidence-based** – any case made by a company for an adjustment must be evidence-based, the impact on the company's cost must be demonstrable and there should be an appropriate burden of proof.
- d. **Materiality** – in order to minimise the regulatory burden, only factors that result in a material cost impact relative to industry average retail costs should be considered for adjustment.

These criteria appear to provide a sufficiently high hurdle to filter out all potential factors other than those that risk significant detriment to the overall integrity of the retail price control.

Clearly there is also the opportunity for Ofwat to choose to use adjustments as a route to correct for other potential disincentive effects also. This would depend on Ofwat's views about the extent to which any disincentive effects are significant and whether or not they should be corrected for via the use of adjustments or some other solution. These issues are discussed in chapter 6.

## How to assess adjustments

Historically, companies submitted claims for company specific factors to Ofwat, and this became an onerous activity for both parties to manage. For the retail cost assessment this should be less of a problem as only a few factors identified previously will apply specifically to retail. Furthermore, restrictions could be placed on the number of claims by carefully managing the size of the materiality threshold.

An alternative approach (suggested at the recent retail workshop) could be for Ofwat to identify a small number of eligible adjustments in advance (from historic knowledge of prior special factor claims), and seek supporting information from companies that would facilitate the calculation of these adjustments.

## How to apply adjustments

Once a potential adjustment has been assessed against the eligibility criteria, and judged to be valid and material, an appropriate adjustment value would need to be calculated and applied to the cost assessment for each relevant company.

A standard industry wide adjustment would meet the consistency objective better than one which is applied only to companies who successfully demonstrate the need for an adjustment. However, information to support an adjustment may not readily be available for all companies, which could obstruct the application of an industry-wide adjustment.

Industry wide adjustments could also allow the sector to focus on a limited set of adjustments, rather than requiring companies to submit (possibly numerous) claims themselves. It would also allow adjustments to be made on an efficient cost basis through comparison between companies but it may result in a range of adjustments for some companies for issues that may not be material to them.

Where companies are aware that they are impacted by a factor, they are more likely to have information available to support this. However, it may not be reasonable or practical to obtain the same information from all other companies. Furthermore, it would not be acceptable to Ofwat (or to other companies) to assess industry wide impacts based on information obtained from a single company (or a subset of companies).

Adjustment factors are only likely to materially affect a small number of companies, with the majority of the industry experiencing small or negligible impacts. Accordingly, industry wide assessments may introduce additional complexity compared to adjustments which are applied to companies that identify themselves as impacted by a particular factor. Adjusting for all such impacts would appear to run counter to the transparency objective. In practice it therefore may be more appropriate in some circumstances to continue applying adjustment factors on a company specific basis.

As part of the assessment process for any potential adjustment, Ofwat will need to determine the most appropriate balance between the need to obtain the information required to assess an adjustment, and the consistency with which it is applied.

The following section seeks to utilise two examples of potential adjustment factors, to test how the assessment criteria and application options might work in practice.

## Examples

Two of the more significant and high profile differences between companies that Ofwat has made adjustments in the past are:

- Differing levels of socio-economic deprivation between regions, resulting from variations in bad debt and related costs.
- Differing levels of meter penetration, resulting in higher levels of retail costs in areas where a high proportion of customers are metered.

These two examples were also highlighted in Ofwat's recent retail consultation. The purpose of this section is not to seek justification (or otherwise) for either of these as valid adjustments, but simply as illustrative examples to investigate how the aforementioned criteria might be used and interpreted by Ofwat to evaluate potential adjustment factors.

For illustrative simplicity, we will assume that these examples pass whatever materiality threshold is set, and further that, for the purpose of assessing how to apply an adjustment in each case, that they are valid adjustments.

## Example assessment 1: Regional income deprivation

Regional income deprivation has previously been identified by some companies which operate in relatively poor socio-economic areas, as resulting in higher costs, predominantly bad debt and debt management costs (on the basis that income deprived customers are more likely to be bad debtors). The impact on the company is usually evaluated by comparing government deprivation statistics with levels of customer debt.

In comparison to the assessment criteria above:

a. **Retail impact**

Income deprivation primarily affects how the customer interacts with the company's retail service activities (e.g. bad debt, debt management, billing, etc.), with minimal (if any) impact on wholesale activities, and as such results in an impact on retail costs.

b. **Cannot be reduced to an immaterial level by efficient management action**

Income deprivation is a socio-economic factor and is exogenous to the company. Whilst companies are able (to some extent) to mitigate this impact through the application of alternative debt management strategies, it remains likely that customers in more deprived areas will be less able (or less inclined) to pay.

Furthermore, the ban on disconnection (that applies to household customers) may act to prevent companies from being able to fully mitigate the impact on bad debt of higher levels of income deprivation.

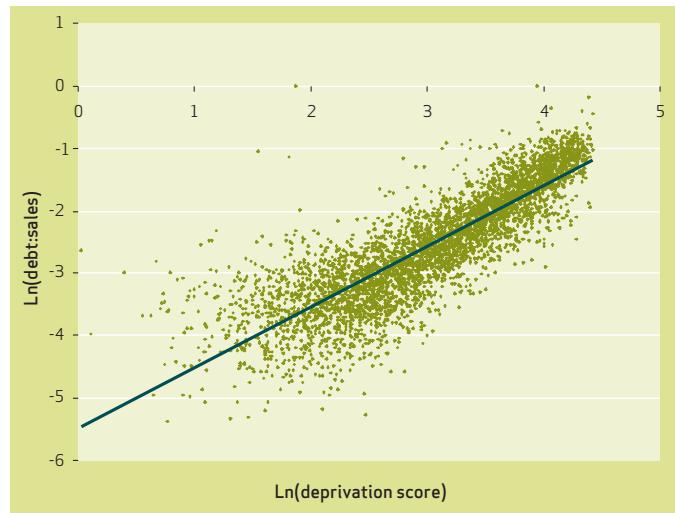
c. **Evidence-based**

The primary source of external information is government statistics on income deprivation provided by "super output area" (a geographic area, usually comprising a few hundred properties). The level of deprivation can hence be compared with the level of customer debt (or other retail cost) evaluated in each super output area. The chart opposite illustrates this relationship for United Utilities Water.

The chart compares customer debt against the income deprivation value (taking the natural logarithm for both sets of figures) for each super output area with United Utilities' region. It appears to demonstrate a strong linear relationship between debt and deprivation.

This relationship determines the expected level of additional bad debt one might expect the company to incur for a given change in income deprivation. Combining this value with the difference between the company's regional average deprivation score and industry average, allows the overall expected impact on the company to be estimated.

**Outstanding debt vs. deprivation score by "super output area" for United Utilities Water**



**How to apply an adjustment for regional income deprivation**

The level of income deprivation varies between company regions. As such one might expect the application of an industry wide adjustment to be relatively straightforward. However, the information utilised to evaluate the relationship between bad debt and deprivation (as per the above chart) is highly detailed at a sub-company level. It may be possible to obtain this information for all companies, but this would certainly result in a substantial increase in the regulatory burden.

Another option could be to produce a much simpler assessment of the relationship between deprivation and bad debt at the total company level, across the industry. However, a simplistic industry-wide comparison may be limited in three ways.

- In part for the reasons set out in chapter 7, bad debt is notoriously inconsistent between companies, as accounting and provisioning rules vary across the industry. As such establishing a reliable relationship between companies may be less successful than one based on data from within a single company
- The majority of information that demonstrates the relationship between debt and deprivation becomes lost in the averaging process (at a company level), i.e. the variation in average income deprivation between companies is far smaller than the variation by super output area. As such company level data will be less representative of all levels of deprivation than super output area level data
- Use of company level data results in a far smaller number of data points compared with the large number of super output areas in an individual company.

Given these potential shortcomings with an industry-wide comparison, an alternative approach might be to only assess adjustments for those companies most likely to experience a material effect. This would target the information burden on those most affected, whilst ensuring that the most material customer and company impacts are appropriately addressed.

## Example assessment 2: Meter penetration

Providing a retail service to metered customers is recognised as being more costly to companies in household customer charges via the “tariff differential” which accepts that a hypothetical “average unmetered customer” would expect to receive a higher metered charge than their unmetered charge. Metering remains an attractive option for many customers due to the fact that they may have below average consumption, and/or that they would have the ability to reduce their bill by reducing their consumption.

As such, one might expect companies with higher than average meter penetration to incur higher than average retail costs.

In comparison to the assessment criteria above:

### a. Retail impact

Differences in meter penetration do not only affect retail costs. The reduction in demand obtained as a result of higher penetration of metering is primarily a benefit to the wholesale business, alleviating issues arising from water scarcity and thus delaying investment in further resource development. However, retailers with high meter penetration will experience higher meter reading and other customer service costs.

### b. Cannot be eliminated by efficient management action

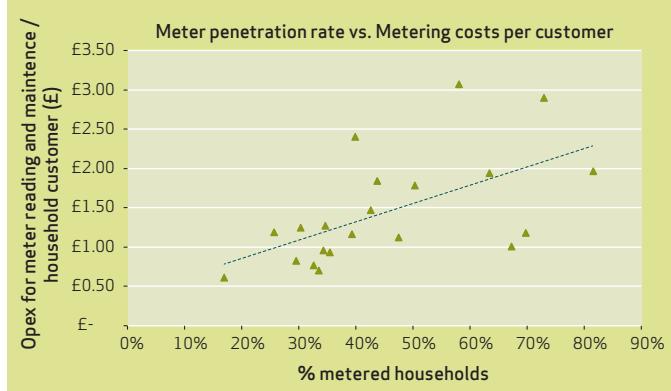
Given that there is no obligation for compulsory metering, much of the variation in meter penetration between areas arises as a result of choices made by management, by differences in customer demand for meters, and by differences in the rate of new property development. Along with leakage reduction and new resource development, it is one of a number of options for managing a company's supply/demand balance, and as such subject to some degree of management control. However, the retail costs associated with higher meter penetration cannot be eliminated entirely by the retailer, and therefore a simplistic average cost to serve may act to discourage metering.

### c. Evidence-based

In addition to the aforementioned assessment of the tariff differential, the effect is demonstrable from prior June Return data on meter penetration and metering costs within retail, with unit costs clearly higher as meter penetration increases.

The chart opposite compares metering costs per customer (all customers) with the proportion of households that are metered. It demonstrates that average meter related costs increase with meter penetration, and hence implies that companies with high levels of metering are likely to incur additional retail costs.

### Relationship between meter penetration and metering costs from 2011 June Return data



### How to apply an adjustment for meter penetration

It should be possible to evaluate an industry wide approach to setting an adjustment factor for each company, based on their level of meter penetration. As mentioned in the previous chapter of this paper, when assessing the impact of metering, it might be necessary to understand the economies of scale involved with providing retail services to metered customers at differing levels of metering. Whilst the total cost of providing retail services may increase with meter penetration, one might expect the unit cost to decrease.

Furthermore, given the clear overlap between metering and supply demand activities within the wholesale service, consideration should be given to the boundary between wholesale and retail. As such, most appropriate treatment of differences in meter penetration may include some combination of retail service definition and adjustment factor.

### Incentives

In both of the illustrative examples, following a conclusion that an adjustment would be justified, it would then be necessary to ascertain whether making a cost adjustment to the average cost to serve would be appropriate, or whether making such an adjustment would result in adverse incentive effects.

There may be other elements of the retail control (other than adjustments) that have an impact on wider incentives across both retail and wholesale price controls. As such, there is merit in considering all aspects of retail activities and costs, to determine what (if any) remedies may be required to ensure that any adverse unintended consequences are avoided.

This is investigated further in the following chapter. A number of areas within the retail service are examined where such impacts on incentives may occur, and a range of potential remedies are evaluated.

# Impact on incentives

5

It is possible that some elements of the retail price control proposals could have unintended consequences elsewhere across both the retail and wholesale price controls. It is important to examine the scale of any potential disincentive effects and consider what remedies can be applied.

This chapter seeks to:

- identify the range of remedies available to address any disincentive effects; and
- investigate and test a number of areas of potential disincentive effects and evaluate the potential remedies where appropriate.

Ofwat's consultation on the retail price control discusses the issues surrounding metering in some detail. As such this chapter will investigate a number of other issues that may (or may not) have wider impacts on incentives.

## Possible regulatory remedies

The remedies set out here represent alternative regulatory actions that Ofwat could take, each one likely to suit different types of adverse incentives. As set out in the previous chapter, one possible remedy could be to apply an adjustment to the average cost to serve. Alternative regulatory remedies might include:

- **Removing the specific cost item** from the average cost to serve, but retaining it within the retail price control. The item would then be subject to a specific cost assessment or incentive mechanism, ensuring that efficiency incentives are maintained.
- **Moving the cost item** from the retail price control into the wholesale price control. This might be appropriate in cases where related activities span both retail and wholesale. It may be appropriate to place all the activities within a single business unit, and hence within a single price control.
- **Introducing or amending an incentive mechanism**, either in the wholesale or the retail control. If the incentive effect is relatively simple, it may be possible to effectively counteract it by changing the incentive framework elsewhere. For example, a revenue correction mechanism may effectively counteract a disincentive to act in an area that may result in a loss of income (e.g. promotion of water efficiency).
- **Applying enforcement or specific reporting**. If there is a risk of insufficient inactivity (or missing a target) in a particular area, Ofwat could impose some specific targeted reporting, or other enforcement measure to drive desired behaviours.

- **Doing nothing.** Where the effect is relatively small, and/or partial mitigation already exists (e.g. an incentive to reduce costs might also act as a disincentive to invest in good customer service, but this may be mitigated by impact on the company's SIM score), clearly one option must be for Ofwat to make the conscious decision not to apply any remedy. It may also be the case that the adverse incentive is simply a co-ordination problem that would be resolved by the retailer and wholesale working together to incentivise each other to deliver the desired outcomes, and as such no further regulatory action would be required.

The following sections relate to a number of specific areas where adverse incentives may be evident, and an appropriate remedy is sought.

## Water efficiency

Water efficiency services involve the provision of advice and support to customers to help them reduce their overall water consumption. The costs for these activities currently sit within the retail business unit in companies' separate accounting information, and account for around 1% of total retail costs across the industry (and 1% of household retail costs).

As stated in Ofwat's consultation on the retail price control, two key objectives for the retail price control are to incentivise more efficient use of water by setting price controls in a way that maximises the opportunities for demand management, and to help to mitigate and adapt to climate change. Water efficiency services are key to both of these objectives.

### Potential impacts on any incentives to provide water efficiency services

Companies have historically been incentivised to perform this activity as part of an integrated Water Resource Management Planning process that considers both demand and supply side options to ensure that these two sides are in balance at the lowest sustainable cost. Companies have in the past also been subject to water efficiency consumption targets, set by Ofwat, and an obligation to promote water efficiency. The costs of these services have historically been recovered from customer bills and subject to an efficiency challenge set by Ofwat which has been applied to the overall business.

Under a separated price control, this service is customer facing and it might therefore appropriately be included within the retail price control (as opposed to the wholesale price control). By including these services in a retail price control they would be subject to a different, more focussed efficiency challenge than they have been in the past. Some companies have argued that this would create a disincentive effect on retailers to provide these services for metered non-contestable customers, as they would experience reduced revenues but it will be the wholesaler that benefits (through reduced water production costs and improvements to supply-demand balance measures).

### **Existing incentives**

In deciding whether any potential disincentive effect exists it is important to consider the strength of existing incentives and recognise that these may change going forward.

We might expect different incentives to provide these services amongst fully separated retail and wholesale monopoly businesses. One of the primary benefits of water efficiency is in reducing future costs for the wholesaler, whilst in contrast providing water efficiency services would only reduce the revenue received by retailers from their metered customers.

However, retailers and wholesalers will not be separated. Instead we are still faced with vertically integrated businesses. Therefore, the extent to which any disincentives for the provision of water efficiency services are material will depend on an internal assessment of the relative costs and benefits to the business as a whole of engaging in the provision of water efficiency services to non-contestable customers. Separate price controls may result in companies considering their retail and wholesale costs separately, but crucially WRMP arrangements will remain ‘integrated’ and any associated obligations and targets (or any other form of incentive) that may continue to apply would apply to the whole appointed business, which will remain under a unitary licence. As a result the overall impact of price separation could be limited.

If these existing incentives continued and still applied to the integrated business, it seems likely that any potential disincentive effect could be mitigated for non-contestable retail activities.

### **Application of an average cost to serve and the efficiency challenge**

Accepting that a separate price control around retail services could increase the extent to which those services are subject to an efficiency challenge, if demand management services account for 1% of those services then retailers will only be able to achieve a 1% cost saving by reducing their provision of these services rather than larger areas like billing (9%), customer contact (15%) or doubtful debts (44%).

The extent to which disincentives may arise will be different for companies with retail costs above and below the average there could be different effects on companies:

- If the price control was set on the basis of the most efficient cost, there could be a potential disincentive to provide water efficiency services for all but the most efficient companies.
- If a symmetric average cost to serve was applied, only those companies above the average could have an increased disincentive to provide these services. Those below the average would still have an incentive to reduce costs; however this incentive would be weaker, given that they would potentially have more revenue to spend on water efficiency if they chose to do so.
- If an asymmetrical average cost to serve approach was applied, with those companies with costs below the average unable to recover costs from customers up to the average then again, those companies above the average could have a disincentive to provide these services. Those below the average would have a reduced disincentive compared to the status quo as they would not be subject to an efficiency challenge.

### **Appraisal of remedies**

We now consider each of the options outlined earlier in relation to addressing any potential disincentives to providing water efficiency services.

- **Do nothing** - any disincentive effect is likely to apply predominantly to those companies with above average costs of serving their customers so the effect will be limited to a sub-set of companies. In addition water efficiency activities only represent about 1% of total retail costs. Where a disincentive effect does exist, it may be significantly counteracted by unified WRMP incentives. Provided that non-contestable retail and wholesale activities remain part of a single unified licence, and given the relatively small cost involved in water efficiency activities, it could be considered reasonable that the ‘do nothing’ remedy represents a simple, proportionate approach for the short term, that minimises any further regulatory burden upon companies.
- **Removing the specific cost item from the average cost to serve** - this would remove any additional disincentive effects and could be used as a method of encouraging more water efficiency advice. However, it would also reduce the efficiency challenge upon companies’ retail elements and may necessitate increased ‘policing’ of company cost reporting by Ofwat.
- **Moving the cost item into the wholesale price control** - this would remove the increased disincentive to the provision of water efficiency services, and could be achieved by an amendment to the existing Regulatory Accounts which would be a minimal regulatory burden.

However, this arrangement would mean that the wholesale business would be required to deal with a customer facing activity. This may not be a problem for non-contestable customers, but if a common retail definition was adopted, it may pose a problem in the contestable market.

- **Introducing or amending an incentive mechanism** - this could strengthen the incentive on companies to provide these services, in line with the objectives of the retail price control, and could be done in such a way that continued to ensure an efficiency challenge on the cost of these services to customers. However, any additional incentive may be difficult to design and may need to be linked to a reward or penalty that was significant enough to mitigate the disincentive effect. Significant rewards would need to be paid for by customers (if rewards were financial in nature) and significant penalties might encourage more risk-averse behaviour amongst companies.

It may not always be the case that increased water efficiency activity offers the lowest whole life cost solution; other demand reduction or supply side solutions may be preferable in some instances. Any incentive would need to be designed in such a way as to recognise these issues as otherwise it may encourage inefficient solutions for customers. A new incentive would also add complexity to the regulatory regime and increase the regulatory burden on companies and Ofwat.

- **Applying enforcement of specific reporting** - an obligation or specific enforcement action requiring cost reporting would increase visibility of the costs associated with this activity and could be used as a form of incentive (or penalty) to encourage the continued or even increased provision of these services. However, it may not always be efficient to provide these services in instances where supply side options would be more efficient for customers and so such an obligation or reporting approach may encourage inefficient solutions for customers and could also create a significant regulatory burden that did not fit with Ofwat's principle of risk based regulation.

## Social tariffs

Section 44 of the Flood and Water Management Act 2010 enables water and sewerage undertakers in England and Wales to include social tariffs in their charges schemes. It enables undertakers to reduce charges for individuals who would otherwise have difficulty paying their bill in full, and explicitly allows for that money to be recovered from the generality of customers. It additionally provides guidance as to the amount of cross-subsidy that would be reasonable. However support from the generality of customers is required prior to the introduction of any such tariff.

The Government is clear that appointed companies are best placed to take decisions around the design of company social tariffs as part of their charges schemes so that they can take account of local circumstances, needs and the views of their customers. To aid this process, Defra published guidance on company social tariffs in June 2012.

### **Potential impacts on any incentives to provide water efficiency services**

Some respondents to the FPL consultation considered that a retailer may have little to gain from introducing a social tariff. At the margin they argued that a retailer may lose some revenue, and/or it may increase bills to the remainder of their customers. The average cost to serve price control will protect those customers who cannot choose to switch their supplier so a monopoly retailer's incentives will be limited to reputational incentives and relatively small temporary loss of revenue. The retailer may be concerned about rises in bills for the generality of customers, but in many cases this could be relatively small. Furthermore, there should be minimal if any impact on company long-term income from introducing a social tariff given that social tariff discounts and the costs of designing and administering social tariffs can all be rebalanced across the whole customer base under the new legislation.

Whilst social tariffs must be targeted at those struggling to pay (including those who may pay their bills), rather than debtors, a retailer may consider that social tariffs could be implemented as a means of reducing bad debt costs (which account for around half of all retail costs).

Companies' ability to capitalise on this new tool will however be mediated by customers' support for the social tariff and the amount of any cross-subsidy that they are willing to bear.

### **Existing incentives**

The provision of support to customers struggling to pay is an important part of good customer service. It is not yet clear how Ofwat will seek to incentivise good customer service going forward, currently an incentive already exists within the Service Incentive Mechanism but it is as yet unclear how this will interact with the outcomes that companies agree with their customers through the customer engagement process.

The WaterSure scheme also already exists and allows certain customers with a water meter to have their bills capped. This is to make sure that these customers don't cut back on how much water they use because they are worried about how they will pay their bill.

## Other factors

The strength of any potential incentive on the retailer to provide social tariffs to households is likely to be related to that company's levels of bad debt. As described earlier in this report, there is evidence of a link between levels of bad debt and regional levels of deprivation and some companies have also argued that there is a relationship between bad debt and the overall bill level.

The balance of positive incentives and disincentives to provide a social tariff may be stronger or weaker depending on multiple factors, including company levels of deprivation, overall bill levels, levels of bad debt, and the ability and willingness of other customers to absorb rebalanced costs. However, this would be the case for all proposed approaches to the non-contestable retail price control.

## Application of an average cost to serve and the efficiency challenge

Under the historic price control arrangements companies have been subject to an integrated efficiency challenge that was applied across the whole business, including bad debt costs. A separate price control around retail services could increase the extent to which those services are subject to an efficiency challenge. Across the industry, doubtful debts and debt management account for the largest portion of retailing costs for household customers (47% and 10% respectively). Therefore, there is the possibility of making potentially large efficiency savings to the extent that the introduction of a social tariff is able to reduce levels of bad debt.

The extent to which disincentives for providing social tariffs may arise will be different for companies with retail costs above and below the average. Depending upon how the retail price control is implemented there could be different effects on companies.

- If the price control was set on the basis of the most efficient cost, there could be a potential disincentive to provide social tariffs for all but the most efficient frontier company.
- If a symmetric average cost to serve was applied, only those companies above the average could have a disincentive to provide these services. Those below the average would have additional revenue to compensate for temporary losses in revenue resulting from the introduction of social tariffs, although the incentive to reduce expenditure would remain.
- If an asymmetrical average cost to serve approach was applied, with those companies with costs below the average unable to recover costs from customers up to the average then again, only those companies above

the average could have a disincentive to provide these services. Those below the average would not have any further revenue to provide these services but they would not be receiving a stronger efficiency challenge than they had before.

## Appraisal of remedies

We now consider each of the options outlined earlier in relation to addressing any potential disincentives to developing and providing social tariffs.

- **Do nothing** - it is difficult to see that there is a stronger disincentive for companies to provide social tariffs under an average cost to serve price control approach. Whilst there may be a temporary loss of revenue, companies would be able to recover all of their costs from the generality of customers under the new legislation and there appears to be a strong incentive for companies to consider social tariffs as a potential tool to reduce bad debt. This approach would also represent a simple approach and minimise any further regulatory burden.
- **Removing the specific cost item from the average cost to serve** - this approach would not apply, as there is no cost item for the provision of social tariffs.
- **Moving the cost item into the wholesale price control** - as above, this approach would not apply given the absence of a specific cost item.
- **Introducing or amending an incentive mechanism** - given that the introduction of social tariffs may help a company realise efficiency savings with respect to customer debt, it may not be appropriate to offer financial rewards to mitigate any potential disincentives for the provision of social tariffs.
- **Applying enforcement of specific reporting** - an obligation or specific enforcement action requiring the provision of social tariffs (beyond WaterSure) could counteract any disincentive to provide social tariffs provided the penalty for non-compliance outweighed any benefits from non-compliance. However, such an approach could increase the regulatory burden and may not fit with Ofwat's principle of risk based regulation.

## Customer service

A key objective for the retail price control is to encourage better customer-facing outcomes by making sure that customers who cannot choose their supplier receive a good service at a fair price, which is protected through regulation. As such, it is important to investigate any potential disincentive effects on the provision of high standards.

### **Potential impacts on any incentives to provide good customer service**

If not specifically monitored, regulated companies may have the incentive to reduce their costs at the expense of the quality of the service they give to their customers. If regulators do no more than introduce limits on the prices that can be charged, companies may be able to achieve higher profits within these price limits if they reduce the quality of the service they provide. This is a particular problem in those parts of the value chain that are not contestable.

With a move to an average cost to serve approach, companies may have an incentive to reduce the levels of quality of service provided to customers in order to reduce their costs.

### **Existing incentives**

In deciding whether any potential disincentive effect exists, it is important to consider the strength of existing incentives and whether they will change going forward.

Ofwat employs the statutory Guaranteed Standards Scheme (GSS) which establishes minimum standards of service that each company must provide to its customers. If a company fails to meet a standard then it must make a specified payment to the affected customers.

Assuming that this scheme is still in place, companies would not be willing to reduce their levels of quality of service below the minimum standard for those services covered by the GSS, so long as the penalty for non-compliance with these standards was greater than the penalty resulting from an average cost to serve efficiency challenge.

In addition, since April 2010, Ofwat has been using the Service Incentive Mechanism (SIM) which comprises: a quantitative indicator that measures complaints and unwanted contacts; and a qualitative indicator that measures how satisfied customers are with the quality of service they receive, based on a survey of consumers who have had direct contact with their water company. It is not yet clear what incentives Ofwat may use going forward to incentivise customer service or how these incentives interact with the outcomes that customers agree with companies. However, these two existing measures aim to capture both the number of times a company fails to meet the expectations of its consumers, as well as the experience of those consumers.

Ofwat will be consulting shortly on outcome delivery incentives as part of its consultation on wholesale controls and this consultation will help to determine what happens to incentives like the SIM under separate retail and wholesale price controls. Therefore, the extent to which the incentives (both financial and reputational) provided by the SIM will continue to apply is presently unclear.

### **Application of an average cost to serve and the efficiency challenge**

There is no specific cost line that relates to 'customer service' as good customer service is likely to relate to most areas of retail and wholesale activity where there is an interaction with the customer in some way, but direct customer contact is likely to account for around 16% of household retail costs (11% for non-network complaints and 5% for network complaints). To the extent that a retailer is facing a stronger efficiency challenge than under a separate retail price control than they would otherwise have done under a single price control, then the existing incentive to reduce the quality of service to customers may be increased. However, the effect may be different for companies with retail costs above and below the industry average:

- If the price control was set on the basis of the most efficient cost, then the incentive to reduce costs at the expense of quality of service standards to customers is likely to increase for all but the most efficient company.
- If a symmetric average cost to serve was applied, then those companies with costs above the average would have a stronger incentive to reduce costs at the expense of service standards. Those below the average would still have an incentive to reduce costs at the expense of quality of service standards; however this incentive would be weaker than under the status quo, given that they would potentially have more revenue to spend on improving quality of service if they chose to do so.
- If an asymmetrical average cost to serve approach was applied, with those companies with costs below the average unable to recover costs from customers up to the average then again, those companies above the average would have a stronger incentive to reduce costs at the expense of quality of service standards. Those below the average may still have an incentive to reduce quality of service standards; however this incentive is still likely to be weaker than it would be under the status quo as companies would not be subject to an efficiency challenge.

### **Appraisal of remedies**

We now consider a range of options in relation to addressing any potential incentives to scale back costs at the expense of quality of customer service standards. For all of these options, there may potentially be an incentive to reduce quality of service standards for all companies, but the relative strength of that incentive is likely to differ for companies above and below the average. It is also important to recognise that the GSS scheme is in place to prevent standards falling below a defined minimum.

- **Do nothing** - under an average cost to serve price control approach, where companies with above average costs have an increased efficiency challenge on their retail costs, it seems likely that existing incentives to reduce the quality of customer service would increase. The extent to which this effect is significant will depend upon the average cost to serve mechanism chosen for the price control, whether or not the company's retail costs are above the average, the scale of the savings that they can make by reducing the quality of their customer service activities, and the impact of other incentives like GSS relative to those savings. A 'do nothing' approach may therefore not be appropriate but it would represent a simple approach and minimise any further regulatory burden.
- **Removing the specific cost item from the average cost to serve** - this approach would not be possible, as there is no specific cost item for the provision of good customer service and it is likely to relate to a number of areas.
- **Moving the cost item into the wholesale price control** - as above, this approach would not apply given the absence of a specific cost item. It also seems inappropriate to remove what represents a core customer facing service from the retail price control.
- **Introducing or amending an incentive mechanism** - this could strengthen the incentive on companies to provide these services, in line with the objectives of the retail price control, and could be done in such a way that continued to ensure an efficiency challenge on the cost of these services to customers. Given the existence of GSS precisely to address this risk under an integrated price control arrangement, it does not seem sensible to design a new incentive mechanism and it may be more appropriate to amend the existing incentive arrangements.  
As we have noted, Ofwat will be consulting shortly on outcome delivery incentives as part of its consultation on wholesale controls and this consultation will help to determine what happens to incentives like the SIM under separate retail and wholesale price controls. Therefore, the extent to which the incentives (both financial and reputational) provided by the SIM will continue to apply is presently unclear and a full appraisal of options is beyond the scope of this work. However, amending the existing arrangements does appear to represent one possible solution to any potential disincentive effects.
- **Applying enforcement of specific reporting** - the existing GSS mechanism represents precisely this sort of enforcement action. More specific cost reporting would be difficult to establish, companies already report costs against a range of areas and for customer facing 'retail' services and it is not obvious that any further cost reporting would help to increase visibility in this area. It could also create an additional regulatory burden and may not fit with Ofwat's principle of risk based regulation.

# Transitional assumptions

Transitional assumptions relate to how cost assumptions applied at the price control are phased from current company cost levels to the final target level of cost. It is important to consider the timeframe over which companies are expected to take their costs down to the target level and what that level is for different companies.

## Definition of cost target

Ofwat has stated that the final target cost to serve would be the industry average non-contestable retail cost. However, in response to the November 2011 consultation, a customer representative raised concerns that this approach could increase the retail costs passed to customers for water companies with below average retail costs. This is because the symmetric application of an average cost ceiling would mean that companies with above average costs will be incentivised to lower costs to the average, but companies with below average costs will be incentivised to raise prices to the average. This effect is the natural result of moving from an approach based on a company by company target using the "frontier" efficiency approach, to a cost assessment based on average costs.

If this outcome was a concern, then a solution could be to set price caps at the lesser of the industry average or the company's actual retail cost. This would be an asymmetric approach to applying the average cost to serve and would mean that companies with costs below the average would not be able to recover any additional revenue from customers. Such an approach is in part analogous to the current relative efficiency assessment in which companies with lower costs than the company deemed to be the frontier (this occurs because Ofwat excludes some companies from being the frontier, e.g. because they are small) are only allowed their actual costs (i.e. they do not receive a "negative efficiency" target, that moves them nearer to the frontier.)

However, such an asymmetric approach would diminish the incentive for companies with below average costs to continue to strive to achieve further efficiencies. This effect was recognised by Ofwat in previous price reviews, by providing an enhanced opex efficiency incentive for companies near and below the benchmark company. As such, should Ofwat conclude that an asymmetric approach is preferable, then some consideration should be given to providing enhanced efficiency incentives (e.g. longer retention of savings) for those with below average costs.

Alternatively, the imposition of a glide-path on cost assumptions (discussed further in the next section) could limit the impact on customers. Although (with a symmetric

approach) companies with below average costs would still gain, their cost recovery would only increase towards the average over time, and hence the extent of the company's gain would be reduced, and the impact on customers would be partially mitigated.

## Phasing of cost assumptions

In previous price reviews, operating cost efficiency assessments were subject to a glide-path from current cost levels as companies were expected to become more efficient over the course of the price review. Accordingly, movement to the target cost was staggered, with each year's target being closer to the frontier than the last.

The retail average cost to serve approach proposed by Ofwat implies a more sudden, "cliff edge" (or cliff face) approach, whereby cost assumptions are subject to no transition from current cost levels. Instead of a glide-path, cost assumptions could be set at the target level (the industry average) from the start of the price control period (see chart below).

**Schematic representation of glide-path and cliff edge approaches to setting cost assumptions**



A cliff edge approach has the greatest effect on those companies at the extremities of actual cost relative to the average. For those with costs above the average, cost allowances would be significantly reduced compared to Ofwat's previous approach. The assumption that companies could instantly reduce costs to the industry average without the use of a transitional period may be simplistic. Further, if allowances are set at the average, those companies below the average could accrue windfall gains from receiving cost allowances above the company's actual cost levels.

As such, moving from a glide-path to a cliff edge approach has the effect of exaggerating the reward and penalty effect of Ofwat's previous approach to cost assessment. There is a wide range of company levels of cost to serve, and also no comprehensive understanding of why company retail costs are so different (see chapter 7). It therefore seems possible that a cliff edge places an unachievable expectation on those with costs above the average, especially if the difference in costs is not due to differences in efficiency. This would appear contrary to the company impact objective.

Therefore it seems reasonable to consider whether a glide-path might be a prudent mechanism to apply to the non contestable price control, at least for the upcoming price review, until Ofwat can have more confidence that retail costs are more consistent across the industry.

## Summary

In this chapter, we have considered four different approaches to retail cost recovery. These are arrived at through different combinations of symmetry and asymmetry, and glide path or cliff edge/face. The chart below compares the total impact on customers (at an industry total level) of these combinations.



Naturally the asymmetric approach results in lower overall costs being passed onto customers as part of the price control. However, consideration should then be given to providing enhanced incentives to companies with below average costs, in order to maintain incentives to deliver further efficiency savings.

It is also apparent from the above analysis that the impact on charges of applying a glide-path could be relatively modest.

# Cost allocation and accounting differences

7

Ofwat's historic approach to cost assessment, treated retail and wholesale costs together. As a result any differences in company cost allocations between retail and wholesale activities (or between contestable and non-contestable retail customers) had a negligible impact on observed performance against the price control, as the single overall service assessment led to any such differences cancelling out over the business as a whole.

Ofwat's decision to separate the price control between retail and wholesale (and further separate retail between contestable and non-contestable) may result in such differences in cost allocation or accounting conferring unintended benefit or detriment to companies.

Accordingly (and following the consistency objective), it seems reasonable for Ofwat to seek further understanding of the circumstances under which accounting or cost allocation differences might arise.

However, it is important to understand that a lack of consistency does not necessarily imply that some companies are allocating or accounting for costs inappropriately, as they may all individually meet the required reporting definitions to the satisfaction of their auditors. However, when setting price controls, if such differences result in real (and unintended) gains or losses for companies, then Ofwat may need to take action to ensure that the outcome is fair and equitable.

There are two main categories of such differences in interpretation:

- Cost type classification and solution choice – e.g. companies may have adopted different solutions resulting in apparent accounting and cost allocation differences, such as renting rather than purchasing systems resulting in differences in allocation between operating cost and capital expenditure, or allocation between income and bad debt.
- Cost purpose or 'service' allocation – e.g. differences in allocation between sewage treatment and sludge treatment, or between retail and wholesale.

In the past, Ofwat has been active in assessing issues of opex / capex classification, and has adjusted company costs in comparative efficiency assessments to reflect differences between companies (principally for metering costs). Ofwat has also recognised the potential for differences in income and bad debt accounting by making changes to disclosure requirements in the regulatory accounts.

There may be many areas where such differences between companies may occur. The following three are particularly pertinent to the retail price control:

- **Income transactions and bad debt classification.** Bad debt is not an expended cost, but the absence of collected income, and as such is sensitive to how income is accounted for. Despite Ofwat changing accounting disclosure requirements to improve transparency, it is possible that companies are not applying a common approach to accounting for income in a way that ensures that reported levels of bad debt are directly comparable across companies.
- **Cost allocation between retail and wholesale.** Some costs are shared between wholesale and retail activities within vertically integrated companies, e.g. general & support costs, and costs for activities that are close to the boundary between retail and wholesale (e.g. metering and network calls). Where there is room for discretion in how companies allocate such costs, this could lead to inconsistent reporting between companies of the balance between their retail and wholesale costs. If carried through into the price control, such differences could result in actual financial gains or losses for companies based on their accounting practices rather than differences in performance.
- **Cost allocation between contestable and non-contestable activities.** Companies will generally utilise many of the same systems, processes and resources to service both contestable and non-contestable customers. Given that accounting separation has only recently been introduced, company cost allocations between contestable and non-contestable activities may not be fully consistent. This gives rise to concerns about the potential for price discrimination within the contestable area or household customers 'paying for competition'.

These observations do not amount to accusations that companies are knowingly incorrectly accounting or wrongly allocating costs. Nor, on their own, do they demonstrate that an adverse outcome would result from the use of existing retail cost data. Furthermore, differences in cost-types and cost

allocation may be expected as companies innovate and take different approaches in response to efficiency incentives.

However, the consistency objective is important when applying a comparative assessment of cost, to ensure fair and consistent application of average cost to serve efficiency challenges, and further to minimise perverse incentives and unintended consequences.

## Income transactions and retail costs

There are various transactions that may give rise to differences in accounting between income and retail operating costs, with particular reference to bad debt recognition.

- **Accounting for income with a low probability of payment**
  - Companies might account for this item differently for two main reasons. Firstly, companies may interpret accounting guidance differently. This may in part be due to differences between statutory and regulatory reporting guidance on reporting turnover where payment is uncertain. Individually, company auditors may determine that the accounting approach adopted is reasonable, but collectively the approaches may not be comparable. This is particularly true given the second reason that companies may account differently for this item, which is that companies may have different criteria for designating a property as void.
- **Transactions between companies where the water and sewerage operator are different**
  - Where the water and sewerage undertaker is different, and the water undertaker acts as the billing agent, the water undertaker will bill customers and collect debt on behalf of the sewerage undertaker, and pass on income collected net of any associated costs. It is unclear how this income is accounted for within the sewerage operator's accounts:
    - a. Are commission costs netted off income, and hence income reported net of commission, or are commission costs reported separately on an opex line, with income reported as the gross billed value?
    - b. Are bad debt costs reported to the sewerage undertaker, and accounted for as an operating cost, or is income provided (or reported) on the basis of cash collected?
- **Income collected by collection agreement**
  - Many companies will have a variety of collection agreements in place with 3rd parties (e.g. local authorities). It is unclear whether companies report income from such activities net of commission, or as the gross bill value with commission reported separately as an operating cost.

It is worth noting that such potential reporting differences are profit neutral for individual companies. However, for a retail average cost assessment they are important, as they are not cost neutral and therefore cost comparisons between companies could be distorted.

## Cost allocation: between retail and wholesale, and between household and non-household

Whilst it is likely that many direct costs will be clearly attributable to either retail or wholesale, there are three areas where differences in allocation may occur:

- **General and support costs** – general and support cost allocations appear to vary substantially between companies. In 2010/11 different water companies allocated between 4% and 34% of total company general and support costs to the retail service (with the remainder allocated to wholesale). Given that such costs across the industry total to c.£600m, such differences between companies will have a large impact on overall retail costs.
- **Retail cost allocation between household and non-household** – company activities will largely be associated with providing a single service to all customers, and as such allocations between customer groups will not generally be subject to direct attribution.
- **Direct costs at the retail/wholesale boundary** – a number of activities at the boundary may be subject to differences in allocation between retail and wholesale, for example:
  - a. Call centres that may deal with both operational (wholesale) and billing (retail) activities
  - b. Customer connections and meter installation, where the meter is classified as retail and the boundary box and any associated pipe-work is classified as wholesale
  - c. Shared IT systems, such as address systems that may be used for both retail and wholesale activities

It is also worth noting that accounting separation is still relatively new to companies, and further that many companies need to complete the accounting separation tables using offline spreadsheet allocations models. As such, that there remains some lack of transparency over the level of consistency between company approaches to cost allocations.

## Possible remedies

Prior to the regulator seeking to apply an appropriate remedy, it is essential to have a better understanding of where any issues of consistency lie, and how significant they are. As discussed above there is sufficient reason to suspect that differences exist. However simply knowing that one company has a different approach to another seems insufficient.

One way to identify the full extent and value of any differences would be the undertaking of a "horizontal audit". At present, individual company auditors review company submissions relative to the relevant reporting definitions, to ensure that the company has met a satisfactory level of compliance. A horizontal audit could alternatively be targeted at identifying

the scale of reporting variations between companies, with a view to assessing the impact on the retail price control. As such, this type of audit can better be focussed on identifying the overall risk to adverse price control outcomes (whether on customer or company), rather than on a single company's compliance with the stated accounting guidance.

It would need to be recognised that differences in company accounting or allocation methodology should be assessed separately to differences arising from company choices of solution (e.g. lease or buy).

There are a number of alternative approaches that could be applied, either individually or in combination:

- **Regulatory enforcement** – Ofwat could utilise enforcement action to manage consistency of reporting. This has typically been Ofwat's approach in the past, but seems more focussed on individual compliance than on overall industry consistency, which is the key issue when considering comparability of the price control between companies.
- **Alignment of accounting guidelines with incentives** – if differences are identified in areas that conflict with other incentives, it may be possible to alter either accounting guidance, or the incentive framework to better align reporting requirements with company outcomes from the price control. For example, the current regulatory accounting definition for income requires all billed values to be reported as income. Given the incentive to reduce bad debt costs, this may incentivise companies to avoid having reporting income for customers where there is a very low probability of payment. If the accounting guidance were modified to allow uncertain income to be derecognised (as per IAS18), the reporting requirements and cost incentives would become better aligned.
- **Standardised cost allocations** – if significant cost items are allocated differently between companies (e.g. general and support costs as noted above), then Ofwat could provide more detailed guidance in its Regulatory Accounting Guidelines to achieve more standardised cost allocation proportions being applied by all companies.
- **More detailed attribution in cost and income reporting** – in some areas, e.g. accounting for income (and associated costs) collected by 3rd parties, increased reporting granularity might help clarify how such income and costs are treated.

The last of these has been the most frequently applied approach taken by other sector regulators when seeking to open up elements of the market to competition (e.g. British Telecom, Royal Mail, and the electricity market). However, in practice this, like standardised cost allocations, may be intrusive and lead to a significant increase in the regulatory burden.