

Retail Services Efficiency benchmarking

Report for Ofwat

September 2017

Updated 29 September 2017

Contents



Executive
Summary

1

Debt
Management

2

Customer
Service Costs

3

Appendices

4

Objective: Assess water company performance in bad debt and customer service costs and compare with other relevant sectors

The background:

The retail cost to serve challenge set to the water companies during PR14 has led to action. Companies in the sector are well underway with delivering substantial financial benefits to reduce their cost to serve, with some of the leading performers in the sector continuing to seek more innovative ways to deliver improvements.

However moving into PR19, Ofwat will challenge companies on the level of bad debts as part of its price setting process. In addition, Ofwat recognises that it is becoming increasingly important to measure how efficient water companies are relative to other sectors, and whether there is scope to push the efficiency challenge even further.

With bad debt forming a large proportion of the cost to serve equation, a key area of focus for PR19 will be careful consideration of the extent to which bad debt costs can be brought in line with other sectors. With bad debt levels within the water industry reaching over £2.2 billion in recent years, efficiency of debt management is now critical.

Scope

Our review focuses only on retail costs associated with household bad debt, debt management and customer service. However, for some measures it has not been possible to isolate household from non-household in water. For other sectors it has not been able to split out household from non-household.

Objectives:

With the critical nature of the bad debt challenge we were asked to:

- **Benchmark** the water sector's performance on retail bad debt costs only for domestic customers against comparable industries, and help to show whether gaps in performance are due to factors within management control or outside of this;
- **Assess what an efficient level** of bad debt could be in the sector, providing an objective and sustainable perspective in how to challenge water companies;
- Develop an understanding of what **management approaches** are taken within the sector, what variation there is both within the sector and compared to other sectors, considering how effective they are in dealing with **causes of bad debt**;
- Identify what are **leading practices** in other industries and what can the water sector learn, to provide recommendations for any updates to regulatory guidelines for dealing with customers in debt; and
- Provide input to help develop thinking on how Ofwat can objectively assess whether there is more company management can do.

In order to push the efficiency challenge for customer service costs we have been asked to:

- **Compare the efficiency** of the water sector's performance on contact centre and bill handling costs compared with other sectors; and
- Make recommendations on **the extent to which information from other sectors** can be used as part of the regulatory 'toolkit', to inform the cost efficiency challenge set for water companies at PR19.

1. Executive report

Executive report

Debt management - conclusions

Our analysis compared the performance and working practices of companies across the Water, Retail Energy and Telco sectors as well as Local Authority council tax in collection and bad debt performance. Whilst this isn't a perfect benchmark, for various reasons documented in the detailed findings section, we have been able to draw the following conclusions:

1. The water sector as a whole is out performed across every metric. (see figs. 1 & 2), although there have been some improvement in recent years in bad debt levels (see pages 28).
2. Bad debt is reducing, however, net debtors are on the rise in the water sector. This is counterintuitive and could suggest that the reduction in bad debt may be due to the recovery of historical arrears or potentially changes in provisioning approach while newer debts are becoming harder to collect.
3. The gap between water sector performance and other sectors cannot be explained entirely by the different legal frameworks within which they work and our qualitative assessment suggests there is more that water companies can do themselves (see page 43).
4. There are some water companies that are performing far better than their industry peers. But even these frontier companies are lagging behind frontier performers in other sectors.
5. There is a strong correlation between deprivation and bad debt charge although some companies are outperforming peers with similar levels of deprivation (see page 29).
6. Water Only companies are performing better than Water & Sewerage companies due to, amongst other things, lower deprivation and lower bill values (see page 54).
7. There is a wide variation in the number of void properties across the sector ranging from 1% to 6% of connected properties; a range that is likely to be as much due to the quality of data and associated treatment of voids as it is the level of vacant properties.

Bad Debt Charge as % of Revenue Across Sectors

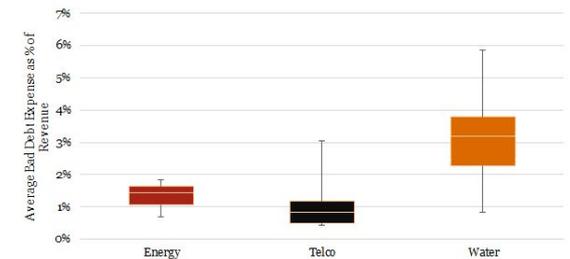


Fig. 1. Bad debt charge is discussed in more detail on page 26.

Metric	Water	Energy	Telco	Council Tax
Bad debt charge as % of Revenue	3.2%	1.5%	0.8%	0.8%
DSO	39	29	30	10
Doubtful debt as a % of net debtors	86%	23%	19%	n/a
Unbilled Debtor Days	80	25	10	n/a

Fig. 2. Comparison of median performance across a range of metrics

Executive report

Debt management - Considerations for Ofwat

1. There are several contributing factors that influence what an efficient level of bad debt could be for each water company. Due to variations in deprivation levels, and the differences in bill sizes, we would not expect each individual water company to achieve the same performance levels. However, it would appear that there is more that water companies can do, and we can quantify the benefits of meeting improved performance levels.
 - Achieving an average performance level across the sector for bad debt at the current frontier level (0.6%), could save customers up to £9.40* from their water bill; achieving the energy sector average (1.5%) could save up to £6.07* and achieving the current upper quartile level of 2% could save up to £4.22*.
2. When setting targets for water companies to drive improvements in bad debt, it is important to be aware of unintended consequences. In recent times there are anecdotal examples of unintended consequences from initiatives in the sector:
 - Some companies may have diluted good debt management practices because of the perceived impact on SIM
 - Some companies may have concluded that the investment required to investigate voids is too much given the recent focus on cost to serve. As a result the number of void properties remains high in some areas.

Aligned to this is the subjective nature of bad debt provisioning which means that some bad debt performance variances may not be directly related to the effectiveness of the debt management practices but more about accounting treatment.

It is therefore important that Ofwat guards against unintended consequences and considers a broad range of measures when determining water company performance on bad debt. In particular Ofwat may wish to make specific adjustments for deprivation whilst also considering the level of voids and doubtful debts (bad debt provision).

3. To help assess performance and understand the key components that drive bad debt, we have provided a matrix of debt metrics that Water companies may find helpful (page 94). In this report we have assessed performance against the following 6 metrics (full definitions are included in the detailed findings report) to give a more holistic view of company debt management performance
 - Net DSO (net debtors i.e. AR net of debt provision expressed as a number of days of revenue)
 - Doubtful debt (value of the bad debt provision)
 - Bad debt charge (value of the P&L adjustment for write offs)
 - Unbilled debt (measured income accrual expressed as days of measured income)
 - Voids as a % of connected properties
 - Customer prepayment days (value of customer pre-payments expressed as a #of days of revenue)

Note: Assumes no increase in debt management costs and all savings are passed on to customers.*

Executive report

Debt management - What can water companies do differently?

From our qualitative assessment, we've identified 6 specific areas where water companies could improve. We are aware that some of these points are already recognised, and some water companies will be addressing these:

1. **Proactively manage customer data.** It is accepted that water companies will not always know who is consuming water in properties supplied by them but there is much more that they can do to improve the quality of the data held. Not only is this important for debt management purposes but is also important for demonstrating compliance with the Data Protection Act, and the forthcoming General Data Protection Regulation (GDPR).

Our analysis shows that void properties account for between 1% to 6% of connected properties. Here are 4 specific areas for water companies to consider for data gathering and validation and reduce the number of void properties:

- Continue to improve the quality of conversations at the “Move In Move Out” (MIMO) stage
- Better identification and validation of customer data at MIMO stage and regularly throughout the lifecycle of an account to ensure that the correct customer is billed
- Improve data capture and validation routines from everyday contact into the contact centre
- Requesting proof of ID from new customers. For a new connection or a currently disconnected property the water company is only required to provide a supply to the owner or occupier of the property

These activities outlined above are likely to result in the identification of occupied void properties. Whilst some of these properties may be hard to collect from it has to be the right thing to do. Water companies should tackle non-payment head on and support their staff to have difficult conversations with customers where it is right to do so.

2. **Tailored collections paths leveraging customer segmentation and behavioural economics principles.** Including billing cycles, payment methods, instalment frequency as well as dunning paths. Incorporating behavioural economics into such customer communications has also been found to be highly effective at increasing customer engagement and ultimately payment.
3. **Move to more frequent or even advance billing** to improve cash collections and identify non-payment sooner. The standard 6 monthly billing in arrears for metered customers would generate approximately 90 days of unbilled revenue. The benchmark suggests that this billing cycle is still the predominant practice. This is significantly out of line with other sectors where billing cycles are shorter and more charges are levied in advance.

Executive report

Debt management - What do water companies need to do differently (continued)?

4. **Improve the availability of affordability schemes and increase take up.** This also includes strategies for managing customers on schemes and keeping customers on schemes where this is the best approach. Specifically:
 - The data improvement and customer segmentation initiatives discussed previously could help to better identify eligible customers earlier to offer support before debt becomes overwhelming.
 - Undertake a broad behavioural change programme using marketing techniques aligned with the latest behavioural economics thinking to improve the likelihood of gaining a positive result when consulting on cross subsidies.
 - Establish self funded affordability schemes to bridge the gap to any cross subsidised schemes. Such schemes are paid for out of the associated reduction in the bad debt charge.
 - Increase the use of door step Affordability visits earlier on in the collection process. This is a far better use of resource, when properly targeted, than litigation or even referral to a DCA.
 - Develop closer working relationships with external agencies such as DWP, RSLs and debt charities.
5. **Provide real consequence to address payment avoidance.** Many water companies have not actively pursued litigation cases due to concerns about customer experience and SIM. And it is perhaps for the same reason a number of companies have avoided fully embracing the data sharing services offered by a number of credit reference agencies. Placing the assets, reputation or credit standing of a debtor at risk are very effective tools when properly targeted at customers that could pay but choose not to. Given that it is illegal to disconnect a domestic water supply for non-payment it would be unwise for a water company not to fully embrace these alternatives to disconnection.
6. **Increase the level of customer prepayments.** There is a wide variance in the level of customer prepayment. Encouraging customers to pay in bite size monthly instalments is more efficient for debt management and helps the customer better manage the affordability of water bills. We would therefore expect to see a very keen focus on this especially in areas of high deprivation. It's important to note that as more charges are moved to payment in advance that this measure will become less meaningful. This measure should also be viewed alongside the level of unbilled debt.

We don't claim that addressing non-payment in the sector is easy or that performance can be turned around overnight or completely. It will always be very hard to collect money from certain people who either have no income and/or assets or otherwise believe they can avoid paying their debts. But our findings suggest that many water companies could do more to maximise the chances of improving collection rates from both types of customer, as well as those who simply forget or otherwise seek to delay payment.

Executive Report

Customer Service Conclusions

The closest indicator to overall customer service cost efficiency is cost-per-contact. Given the two leading customer service benchmarks (ContactBabel & Dimension Data)* publish data for only the broader utilities sector, including water, we have only been able to assess cost efficiency at this level.

In this respect, utilities cost-per-contact exceeds comparable sectors, driven by relatively high cost-per-call and cost-per-email, as shown in fig. 1.

Overall costs and cost-per-contact are driven by four main areas of customer service performance:

1) People Management

- Higher staffing costs are driven by marginally higher Manager and Team Leader salaries in Utilities.
- Spans of control between Team Leaders and Agents are below other sectors (11.8 vs 14.3), indicating higher proportion of management staff, as shown in fig. 2.
- While attrition and absence rates appear on par with other sectors, they are higher than most sectors with cheaper cost-per-contact.

2) Customer Experience

- Service levels are largely in-line with industry averages indicating that this does not significantly affect overall customer service costs.
- Abandonment rate and first contact resolution performance are largely in-line with other sector performance with average speed to answer slightly below.

Fig. 1. Cost-per-contact by channel**

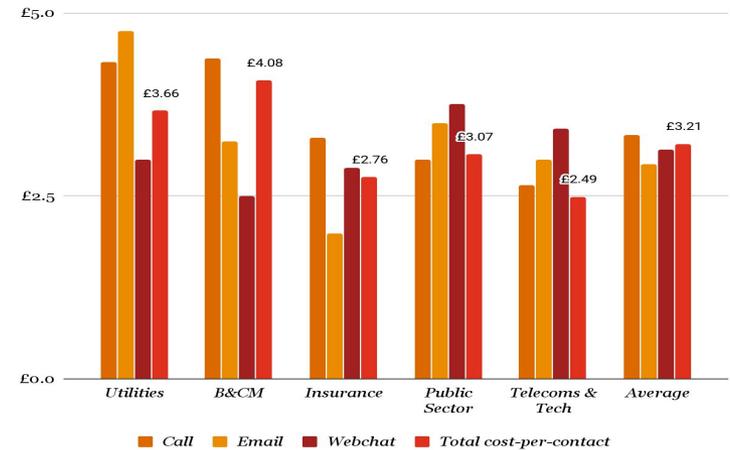
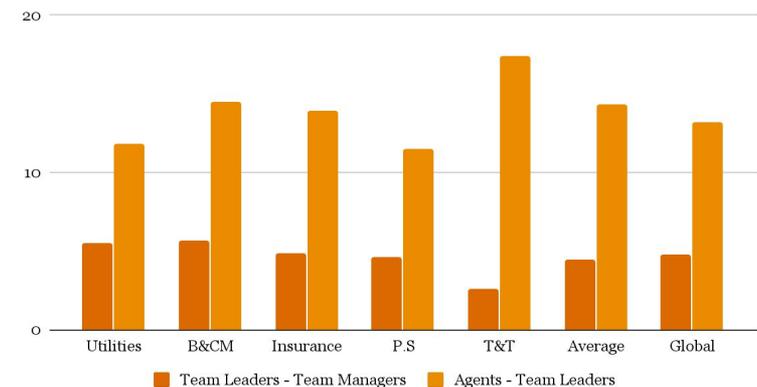


Fig. 2. Average spans of control***



* ContactBabel; 2016-17; The UK Contact Centre HR & Operational Benchmarking Report & Dimension Data; 2017; 2017 Global Customer Experience Benchmarking Report

**Combined value (total cost-per-contact) calculated using 2014-16 cost-per-contact data and 2016 inbound contact channel distribution

***ContactBabel 'The UK Contact Centre HR & Operational Benchmarking Report'

Executive Report

Customer Service Conclusions (continued)

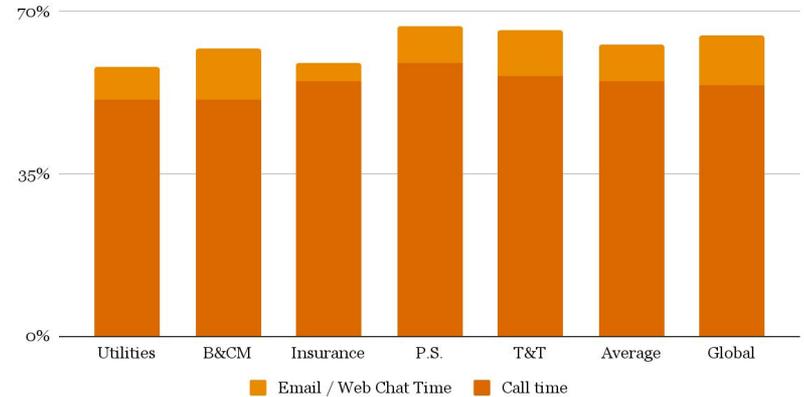
3) Operational Efficiency

- Overall agents in Utilities spend 5% less time interacting with customers, 2% more sat waiting for the next contact and 3% wrapping up calls - all contributing to considerably less time spent on productive customer service activity.
- High cost-per-call of £4.33 across Utilities is largely driven by the following call performance variance to comparable sectors:
 - 60% longer wrap time
 - 10% longer average handling time (AHT)
 - 4% higher call transfer rate
- Available water provider metrics indicate that call performance is below the wider utilities sector.

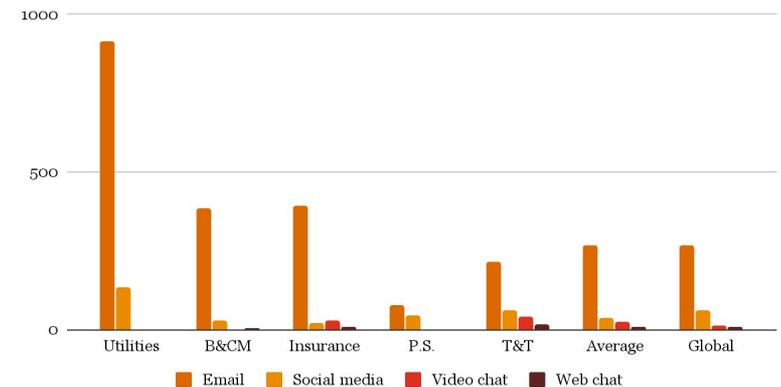
4) Channel Performance

- 73% of inbound contact is on call and email channels, which are both more expensive per contact than comparable sectors. Low cost channels, such as web chat, social media and SMS have limited penetration in the Utilities sector.
- Levels of automation for inbound contact are considerably below sectors averages across all interaction types.
- Service levels for digital channels are considerably lower in utilities, with email response times 3x the average. T&T on the other hand has the lowest response times and greatest distribution towards digital channels.

Proportion of agent time that is customer facing*



Average response time [mins] for non-call channels*



*ContactBabel - 'The UK Contact Centre HR & Operational Benchmarking Report'

Executive Report

Customer Service recommendations

Due to lack of publicly available data specific to the water sector, the majority of observations are based on overall utilities performance. In this regard, benchmarkable metrics indicate that customer service costs across utilities are higher than comparable sectors. Furthermore, the available data points for water providers indicate that specific sector performance is typically in line or worse than the broader utilities sector.

To make the observations above more robust, we recommend that Ofwat collect data from water providers across a targeted set of metrics. This will allow for robust benchmarking of water companies against industry-wide leading practice. This, in turn, will provide additional evidence on the cost efficiency of the water sector relative to other sectors in providing customer services. We also recommend that water companies use these metrics to benchmark their performance against the wider industry. The following metrics are proposed for collection:

Cost-per-contact across each
inbound channel
(£)

People Management

Average salary costs across
grades (£)

Customer Experience

Call abandonment rate (%)

Operational Efficiency

Agent utilisation (%)

Channel Performance

Inbound channel
distribution (%)

Digital self-service volumes
(#)

2. Debt Management

Section	Content
Approach	<ul style="list-style-type: none">• Methodology for quantitative and qualitative approach• Data limitations and extrapolation• Metrics and correlation
Benchmark	<ul style="list-style-type: none">• DSO• Unbilled• Doubtful Debt• Bad debt charge• Cash conversation• Prepayments• Voids
Qualitative Assessment	<ul style="list-style-type: none">• Moments of truth• Best practice attributes• Cross sector comparison• What can water companies learn from other sectors• Key improvement opportunities for water companies
Considerations	<ul style="list-style-type: none">• Principles for dealing with customers in debt• Data quality and validation• Assessment Framework

Debt Management Approach

The metrics used to assess debt management are wide-ranging to give a comprehensive view of performance

Days Sales Outstanding

A measure of debt performance that expresses outstanding customer debts as a number of days of sales ($\text{Trade Debtors} \times 365 / \text{Revenue}$).

This gives an indication of how long it takes the average customer to pay.

Doubtful Debt

Outstanding debt which is considered likely to be uncollectable, but remains on the sales ledger. This provision for uncollected debts is disclosed in statutory accounts but is not a mandatory disclosure. The ratio used here is the provision to net debtors (i.e. trade debtors minus the provision for doubtful debts).

This debt has a low expectation of recovery but still occupies resources and therefore incurs costs.

Voids

The volume of void properties compared to the number of connected homes. Voids occur where a household is thought to be unoccupied, but which is still connected to the water supply.

This reflects the level of unoccupied properties but is often overstated due to poor quality of customer data and the different approaches to void management adopted by the water companies

Prepayments

Customer Prepayment Days expresses customer prepayments as a number of days of revenue ($\text{Customer Prepayments} / \text{Revenue} \times 365$).

This shows the level of customer payments made in advance of billing. Instalment plans mean that customers make payments in advance of the bill date that should clear the bill when it is raised, therefore preventing future debt.



Bad Debt Charge

The charge made to the Statement of Income to account for customer debts which are not collectable. This charge is required each year to 'top-up' the provision to the required level that a company has deemed necessary to cover debts deemed to be 'doubtful' in the year of reporting.

This is the true cost of bad debt and in water represents a significant proportion of the cost to serve.

Unbilled Debt

This is the value of sales that a company has made but not invoiced. In water company Regulatory Accounts it is identified as the Measured Income Accrual; in other companies statutory accounts it is typically classified as Accrued Income (and often combined with prepayments made to suppliers). The ratio used here is unbilled debt in days of revenue ($\text{Unbilled Debt} \times 365 / \text{Revenue}$).

This gives a good indication of how long it takes to bill customers. For non-instalment plan customers this will have a significant impact on cash collections and ultimately bad debt.

We see debt prevention and debt recovery as equally important, however published data does not allow us to assess prevention methods. Later in the report we have outlined some key metrics that can be used to measure prevention performance internally.

Measures only available for water companies

It is the links between metrics which allow us to see how the revenue cycle of water companies is actually performing

The diagram below shows the total potential and actual assets associated with receivables. By combining these in a single view of the total investment in debtors, it is clear to see the opportunities that are available to water companies from a cash and debt management perspective.

Investment in debtors	What?	Days Revenue*	Importance	
	Unbilled Voids rev.	Voids represent properties which are connected but not billed, representing lost revenue.	14 days**	Cash which is not being pursued
	Unbilled Debt	Unbilled debt represents the value of services which have been provided, but for which an invoice hasn't yet been sent.	76 days	
	Doubtful Debts	Doubtful debts are bills which have been raised for services provided, but which are considered to be unlikely to be paid.	48 days	Future cash receipts which are in doubt
	Billed Debtors	Billed debtors are bills which have been raised to customers but not yet paid, for which the company are confident of receiving cash for.	38 days	Cash which is currently being pursued
	Prepaid Income	Prepaid income is whereby customers provide advanced payment for services to be received.	-28 days	Cash received early
Total investment in debtors could be as high as:		148 days	If all voids were billed	

*Based on average water sector performance

** We have monetised voids using the average bill value, and average voids level and expressed this in terms of days of revenue for illustrative purposes. However it is unlikely that many of these void properties will actually be billed.

We've assessed the correlation between certain measures to determine the extent to which these influence performance

To understand what influences lie behind the water sector's performance, data has been compared against deprivation and the number of household connections each water company is responsible for.

We have used a simple **correlation analysis** to provide an indication of the strength of relationships between these water company characteristics, and the key metrics used in this report. Correlation analysis works by calculating a figure (the correlation coefficient) to describe how much of the variation in one set of data is matched by variations in the other set of data.

For example, when plotting DSO against the deprivation index for a company's main area of operations, a correlation coefficient can be calculated which determines **how results** for DSO **correspond with the variance** in deprivation indices.

The result of this simplistic analysis is a figure between -1 and +1. A positive coefficient means that as one data set increases, so does the other. A negative coefficient means that as one data set increases, the other decreases.

A correlation coefficient **cannot** determine a relationship of causality as the correlation coefficient does not identify which of the two factors is the driver, and which is the result. It may also be that the two data sets may both be responding to an unidentified third factor, not included in the calculation.

The coefficient provides an indication of **the degree of a relationship between two sets of data**, which can be used to build understanding by contextualising these findings. The higher the correlation coefficient the stronger the relationship is likely to be.

Data for **deprivation levels** have been sourced from the Governmental 2015 Levels of Deprivation Report using the Index of Multiple Deprivation (IMD). This has been mapped to Local Authorities in England on a postcode level. This was then mapped against water companies using Local Authority to water-company mapping provided by Ofwat. We have then used 2011 census data showing population by Local Authority Ward to provide a weighted average Deprivation Score for each Water Company.

The 2015 English Deprivation Levels report does not include data for Welsh authorities. We have therefore calculated the Welsh deprivation score using the best available data, A 2001 report by Carmarthenshire Council showing the IMD for the top and bottom most deprived areas of Wales. We have then used the 2011 census data to produce a weighted average IMD for Wales. We then adjusted for the variance between the Welsh and English IMD methodologies as detailed in a publication from the BMJ Publishing Group Limited entitled 'Adjusted indices of multiple deprivation to enable comparisons within and between constituent countries of the UK including an illustration using mortality rates' published in 2017.

Debt Management Benchmark

Focus on DSO



Sample Sizes
Water: 18
Energy: 8
Telco: 7
Local Authorities: All council tax in England

Days Sales Outstanding
A measure of debt performance that expresses outstanding customer debts as a number of days of sales (Trade Debtors x 365 / Revenue).
This gives an indication of how long it takes the average customer to pay.

For Water companies DSO is calculated based on the debts of household customers only, and is divided by revenues from household customers only. These figures are derived from the Regulatory Accounts published by each water company in each given year. Household only data is not available for 2016 and therefore 2016 data is the result of projections, calculated as described in appendix 6.

For non-water companies this is calculated using total trade debtors and total revenues as reported in their statutory financial accounts, published annually. As such this measure for non-water sectors is not for household specifically. For non-water companies figures are only from specific service providing companies involved in direct sale of energy utilities or telcos.

Local authority data is sourced from governmental reporting on in-year collection performance and is for council tax specifically.

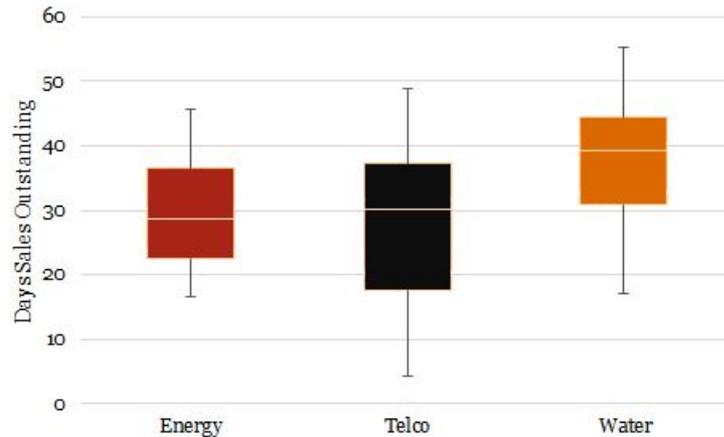
Wide variance across the sector suggests scope for improvement. This opportunity is even greater if the gap to other utilities can be closed.

Understanding DSO:

- Water sector DSO has been calculated purely for household debtors. This represents a combination of both metered and unmetered customers.
 - For energy & telco sectors DSO is calculated using Trade Debtors directly from the company accounts, as these balances are not typically split between domestic and non-domestic segments.
 - The results showing that water has a consistently higher DSO performance than energy and telco may be in some part due to the fact that energy and telco data includes non-household customers who are more likely to pay on a timely basis.
 - DSO for local authorities, however, is specifically calculated on the basis of council tax debt against council tax income. Performance of local authorities is, on average 29 days better than water.
 - Local authorities do have greater ability to influence customers due to the ability to seek committal (imprisonment) for non payment. In addition, there are certain other benefits associated with tax debts, including:
 - Preferential status for attachment of benefits and earnings
 - Access to local authority administered benefits data
 - One key factor that is likely to impact DSO is the proportion of sales that are paid via Direct Debit. A higher take up of DD would improve collection rates as it is a more reliable means of securing on-time payment. This will result in higher cash receipts, lower DSO and ultimately lower levels of bad debt.
- Water companies have been inherently constrained in their ability to enforce payment since the 1999 water industry act made it illegal for water companies to disconnect domestic water supplies for reasons of non-payment. Whilst disconnecting domestic energy supplies is also problematic, the ability to install a prepayment meter is an effective deterrent, placing the onus of disconnection onto customers. Quantification of the impact of this is beyond the scope of this study.
 - There is a wide variance in DSO performance amongst water companies which suggests that some companies have been more successful at motivating customers to pay despite these constraints.
 - As the figures presented are calculated using net debtors (i.e. excluding doubtful debts), the comparative performance across sectors is also influenced not only by the quality of the debt book but also different provisioning policies.
 - The DSO findings suggest that water companies have worse debt management performance than other industries, with the scale of the range in water suggesting performance is highly variable.
 - The analysis shows that water company DSO performance is deteriorating. In particular, the best companies appear to be getting worse. This could simply be due to changing approaches to bad debt provisioning but the continuing stress on disposable income is also likely to be a key factor.

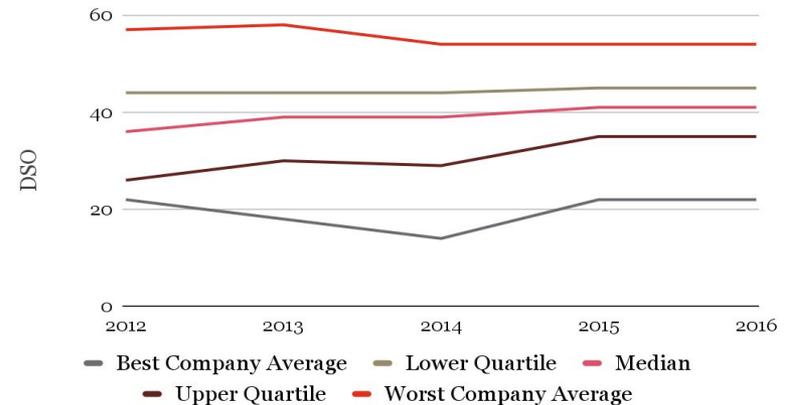
Water companies have a consistently higher DSO than their peers in other sectors suggesting it takes them longer to get paid

Average Days Sales Outstanding Across Sectors



- The **water median (39)** is worse than the **lower quartile** for both **energy (37)** and **telco (37)**, and its upper quartile standard (44 days) is **comparable** to the **worst performance** in **energy (46)**.
- **Water's upper quartile (31)** is comparable to the **lower quartile** for **energy (37)**.
- **Best performance (17)** in the **water** sector is **equivalent** to **best performance** in **energy (17)**, but is **worse** than the **upper quartile** standard in **telco (18)**.

Breakdown of water sector performance



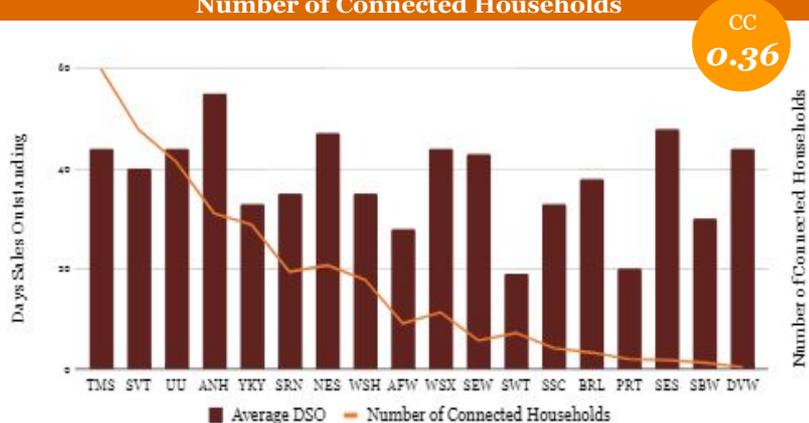
- **DSO levels have risen over the last 5 years.**
- **Upper quartile DSO performance in water deteriorated by 4 days between 2012 and 2013,** and again by **6 days between 2014 and 2015.**
- The worst company has shown a sizeable improvement though, **reducing the gap between best and worst companies by 4 days** since 2012.
- This deterioration is likely to be the results of the reported squeeze on cost of living over recent years. Resulting in customers taking a little longer to pay.

DSO is a useful performance measure but is currently distorted due to the subjective nature of provisioning and write off policies

Average Days Sales Outstanding vs Deprivation



Average Days Sales Outstanding vs Number of Connected Households



Observations

There is no clear link between average net DSO and levels of deprivation. One likely reason for this is that the net figure excludes doubtful debt - the main component of the debt book that would intuitively be influenced by deprivation. Thus the remaining net debt book would relate to the component of the ledger that is least influenced by high levels of deprivation.

The correlation between DSO and the volume of connected properties is weak indicating that the size of the operational footprint has little bearing on DSO performance.

In short, companies of all sizes have a broadly similar ability to influence debtor performance. Whilst there are inherent challenges associated with managing a greater quantity of customers, this does not appear to be particularly restrictive on debtor management standards.

It would be natural to assume that what one water company could achieve, all others could emulate. However, we feel that the 20 days achieved by SWT and PRT are probably not realistic benchmarks as this would suggest that the average customer pays after 20 days - shortly after a first reminder would be issued. Whilst this may well be the case for the 'good paying customers', the definition of 'good paying customers' is subjective as we discuss in the section on Doubtful Debt.

We would suggest that a DSO range of between 30 to 35 days would represent a more realistic objective for water companies and would be more comparable to Energy company performance. However, to be meaningful, there would need to be a consistent approach to the calculation of doubtful debt.

So, what does this tell us?

Our long held view is that the secret to better performance is better operational practices and a company culture that prioritises cash collections.

Focus on doubtful debt



Sample Sizes

Water: 13
Energy: 7
Telco: 7
Local Authorities: N/A

Doubtful Debt

Outstanding debt which is considered likely to be uncollectable, but remains on the sales ledger. This provision for uncollected debts allows a more complete assessment of debtor performance. The ratio used here is the provision to net debtors (i.e. trade debtors minus the provision for doubtful debts).

This debt has a low expectation of recovery but still occupies resources and therefore incurs costs.

For all companies benchmarked this is calculated using the Provision for Doubtful Debts, and the Trade Debtors figures, disclosed in the statutory financial accounts issued each year. Disclosing the provision held is not a specific requirement of all companies. None of these figures are disclosed on a level from which household specific figures can be obtained. This metric therefore describes performance on a company-wide level.

For non-water companies these figures are extracted where possible from the statutory retail entities rather than from the group accounts. This is not possible for all sampled companies and therefore the group accounts have been used as an alternative for one energy utility and one telco.

The analysis covers the period between 2012 and 2016, subject to data availability (see page 80). The calculation method is described in Appendix 6

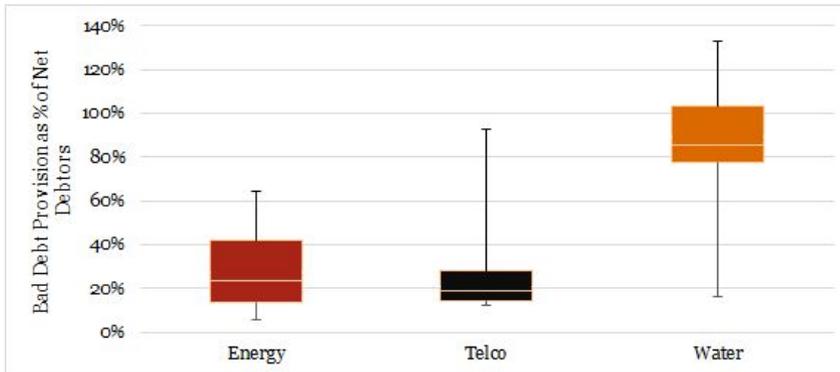
High levels of doubtful debt mean that water companies continue to expend resources chasing debt that is deemed to be uncollectable

Understanding doubtful debt:

- Doubtful debt is the amount of debt that the company believes to be uncollectable. This is generally defined by age of debt using historical collection rates. For example, if historically a company only recovered 10% of debts that are over 1 year old, the company would assume that 90% is unlikely to be collected and therefore provide for 90% of this debt.
- In general terms the older a debt gets the lower the likelihood of recovery. Because of this, it should be no surprise that the majority of doubtful debt is over a year old.
- Whilst we have not been able to benchmark it here, we know that water companies are typically collecting around 90% of their bills within the year that they were raised and ultimately collection rates are around 97% of billings as evidenced by the average bad debt charge of 3% of revenues.
- Often around 50% or more of gross debtors are over 1 year old and subject to a sizeable bad debt provision. This means that the doubtful debt has accumulated over several years. And while the debt remains on the books, the water company expends effort and cost in its attempts to recover it.
- One of the main reasons that this doubtful debt remains on the books is that it often relates to existing customers that continue to be billed. This remains on the ledger as writing it off would send the wrong message to the customer base that “if you can avoid payment for long enough, the water company will write off the debt”.
- However our experience suggests that, when data quality issues are addressed, many of these non-paying customers with historical arrears are likely to be found to be billings to the wrong customer. In short the historical debts are, in many cases, likely to be for unidentified former debtors.
- It is also important to note that different provisioning policies and calculations are used by different water companies. But the accuracy of the provision is to a certain extent a subjective assessment and is therefore not an entirely reliable barometer of bad debt performance. For example:
 - There is no standard policy or calculation method and the Accounts are audited by different (independent) Auditors.
 - The availability of provisioning data is poor as companies are not required to report bad debt provisions in their accounts.
 - As the Receivable Asset will likely never be liquidated the accuracy of a provision will never be fully tested.

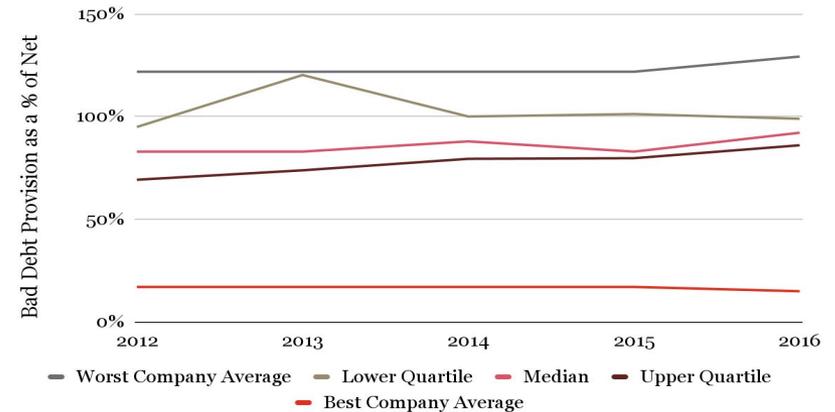
There is wide variance in the level of doubtful debt across the sector with, on average, an increase year on year

Average Bad Debt Provision as % of Net Debtors Across Sectors



- The **median** performance standard in **water (86%)** is most **comparable** to **worst performance** in the **telco (101%)**, which is itself an outlier in its industry.
- **Best** performance in the **water** sector (17%) is approximately the **same** standard as the **upper quartile** performance in **telco (15%)**, but is a clear outlier.
- **Water** sector **range** is very wide with **best** performance at **17%**, and the **worst** over **133%**.

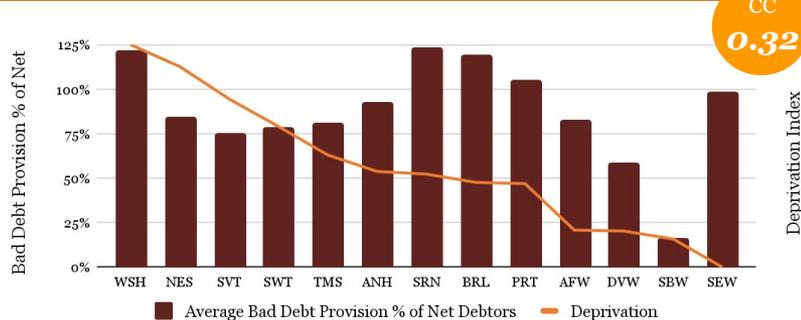
Breakdown of water sector performance



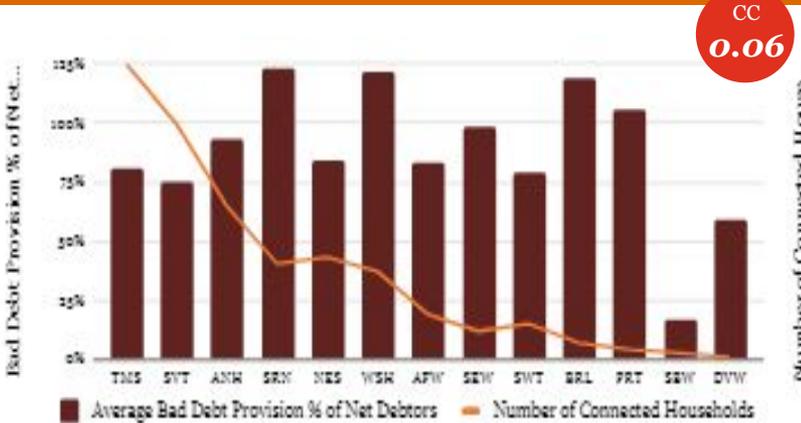
- The **water** sector has seen an **increase** in the **proportion** of bad debt provisions of net debtors between 2012 and 2016 - the **median rising 9 percentage points to 92%**.
- There has been a **convergence** in company performance with the **difference** between **upper and lower quartiles reducing from 26 percentage points to 13 percentage points**.
- Again, we would consider the best water company to be an outlier on the grounds that it's level of doubtful debt is so far out of line with its peers..

The weak correlation between the bad debt provision and deprivation is counter intuitive

Average Bad Debt Provision as % of Net Debtors vs Deprivation



Average Bad Debt Provision as % of Net Debtors vs Total Connected Households



Observations

The correlation between the level of doubtful debt and deprivation is quite weak. This does not suggest that bad debts are unrelated to deprivation, but that different companies have very different perspectives of how much debt will be unpaid, and not in accordance with just deprivation levels. It is important to note here that:

1. As we've already discussed, bad debt provisions can be highly subjective, with management taking a range of approaches in determining which customer debts are unlikely to be paid.
2. The availability of Affordability schemes and the degree to which these are actively managed by different companies.
3. There are indications that there are approaches to managing void properties which are likely to result in lower than expected levels of bad debt provision and write off.

The correlation between bad debt provisions and the volume of connected properties is weak indicating that the size of the operational footprint has little bearing on on the level of doubtful debtors. In short companies of all sizes have a broadly similar ability to influence debtor performance.

So, what does this tell us?

Provisions held are heavily dependent on management subjectivity with some over-providing based on relative deprivation. Our view is that better performance is achieved by better operational practices and a culture prioritising collections - such as adopting customer-specific engagement strategies.

Focus on bad debt charge



Bad Debt Charge

The charge made to the Statement of Income to account for customer debts which are not collectable.

This is the true cost of bad debt and in water represents a significant proportion of the cost to serve.

For water companies the bad debt expense is taken directly from the Regulatory Accounts for household customers only. This cost is referred to in the Regulatory Accounts as Doubtful Debt within a disclosure of operating expenditures. Revenues are also for household customers only. Therefore this overall measure is only for household customers.

For energy and telecoms companies the bad debt expense is taken from the Statutory Accounts issued annually. Disclosing this cost is not a requirement, therefore the sample size is relatively low, and none of these figures are disclosed on a household only level. This metric therefore describes performance on a company-wide level for non-Water companies.

The analysis covers the period between 2012 and 2017, subject to data availability (see page 80). The calculation method is described in Appendix 6

Sample Sizes

Water: 18

Energy: 3

Telco: 6

Local Authorities All council tax in England

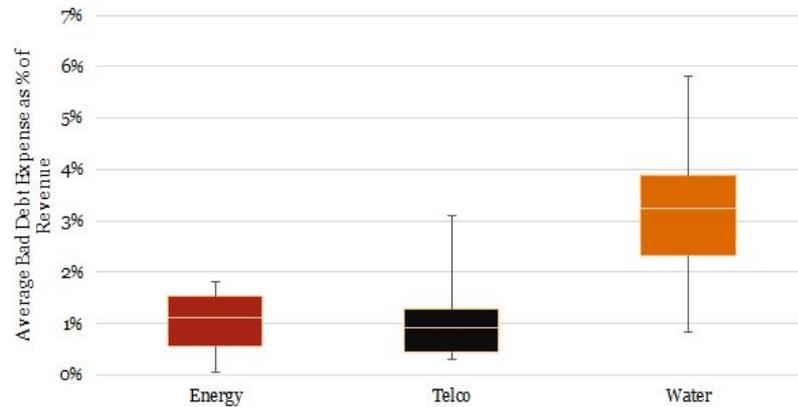
Water companies suffer significantly higher Bad Debt Charges than companies in energy, telco & local authorities

Understanding bad debt charge:

- The 'bad debt charge' is essentially the balancing item in a calculation that reconciles the movement in the 'bad debt provision' year on year. But it is important because it represents the real cost to the business of uncollected debts.
- Whilst the 'bad debt charge' is sometimes thought to show the amount of debt that is written off each year this is not strictly correct. In practical terms, debt is written off from an accounting perspective as soon as it is included in the 'bad debt provision'. Debts that are provided for with a 'bad debt provision' (also known as 'doubtful debts') will remain on the ledger until they are removed with a 'write off journal'.
- In summary, the two important bad debt measures are the 'bad debt provision' and the 'bad debt charge'. And as one is a balancing item of an equation involving the other they remain inextricably linked.
- Therefore, the somewhat subjective nature of the 'bad debt provision' as discussed earlier means that the 'bad debt charge', as a balancing item, must therefore be, to a greater or lesser extent, subjective too.
- In addition, it is worth noting that accounting policies allow for companies to reverse out revenue (and as a result nullify any associated debt) where the property was subsequently found to be void at that time. Some companies have invested in external data to help make this assessment and thus nullify the debt whilst others will simply write off the debt as uncollectable.
- In addition we are aware that some companies are choosing to leave properties as void until they have sufficient evidence that water is being consumed. A key component of this is the identification of an occupier. These investigations take time and cost money, it is therefore not surprising that some companies are prioritising these activities for properties where collection rates might be expected to be highest. As a result, we believe that there will be a number of properties classified as void which are occupied and for which there is a low likelihood of recovery. There is no tangible evidence to support this although the varying level of voids between companies shows considerable variance with some companies claiming 2 to 3 times as many voids as other companies. The net result is that some companies may be choosing not to recognise such revenue while other companies (that choose to maximize billings) will ultimately write off debt for similar properties in their area.
- The weighted average bad debt charge per connected household in 2016 is £11.62*. These figures compare to weighted average bad debt charges per customer of £9.20 for the energy sector in 2016 and £7.43 for the telco sector in 2015 (samples of 3 and 2 respectively).
Note*: The £11.62 cost of bad debt quoted above is a reduction in the cost calculated for 2015 which stood at £14 representing 67% of the total £21 cost of bad debtors cited by OFWAT in previous publications. The balance being the cost of debt management and foregone return on capital.

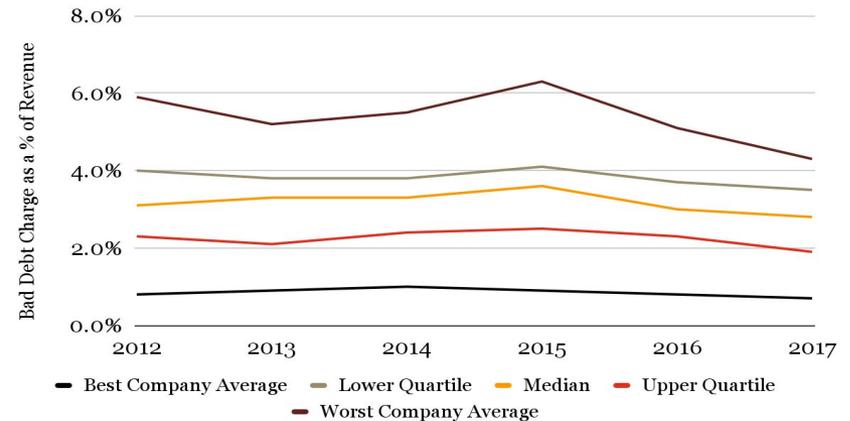
The bad debt charge varies across water companies reflecting the different approaches to provisioning as well as void management

Average Bad Debt Charge as % of Revenue Across Sectors



- **Best** performance in the **water** sector (**0.8%**) is **comparable** to the **median** level in **telco** (**0.9%**)
- The **upper quartile** standard in **water** (average **2.3%**) is worse than the **worst** performance in **energy** (**1.5%**).
- There is a significant **range between best and worst** performers in the water sector (**5.0 percentage points**).

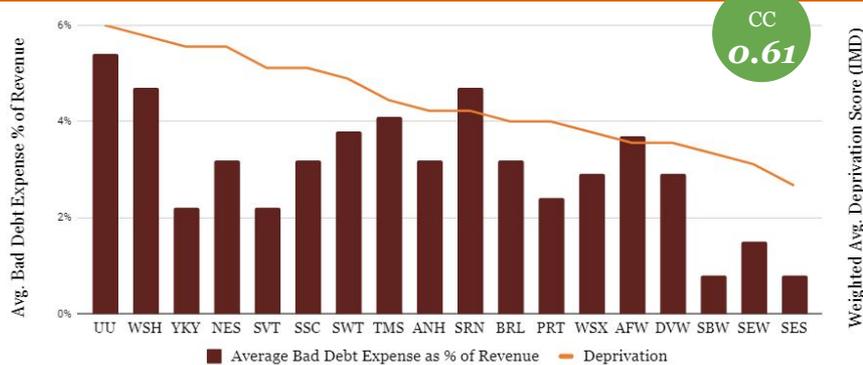
Breakdown of water sector performance



- Generally bad debt, expressed as the **bad debt charge shows little variance year on year**.
- **Since 2015 the bad debt trend has been improving** with many companies showing a significant reduction in bad debt.
- Overall, the weighted average level of **bad debt for the sector has reduced (improved) by 18%** (from 3.8% to 3.1%) in 3 years. The median shown above has improved from 3.1% to 2.8%.
- Whilst the **companies performing at or below median have shown a sustained improvement** over the last 3 years whilst the best performers in the upper quartile range are just about holding on to the improvements they made in 2016.

Bad Debt charge is clearly associated with levels of deprivation in the operating area of each water company

Average Bad Debt Charge as a Percentage of Revenue vs Deprivation



Observations

Whilst there is a strong correlation between bad debt charge and deprivation some companies are able to perform significantly better than others with lower levels of deprivation.

This tells us one of two things:

1. Companies outperforming against the deprivation score may simply be better at managing debtors
2. There are other ways that water companies are able to deal with the impact of deprivation other than write off debt. This could include but is not limited to:
 - a. Better use/penetration of Affordability schemes
 - b. Stricter rules around recognising and billing occupied properties that might otherwise be considered void

Average Bad Debt Charge as a Percentage of Revenue vs Total Connected Households



Similarly there are some water companies that perform at a worse level than their deprivation score might suggest.

So, what does this tell us?

The analysis confirms the correlation between deprivation and bad debt. But it also clearly shows that some companies are able to show good levels of performance despite high levels of deprivation.

We therefore conclude that a broader range of metrics would be required to make a proper assessment of how well a company is managing their debt book.

Focus on unbilled debt



Unbilled Debt

This is the value of sales that a company has made but not invoiced for. In water company Regulatory Accounts it is identified as the Measured Income Accrual; in other companies statutory accounts it is typically classified as Accrued Income (and often combined with prepayments made to suppliers). The ratio used here is unbilled debt in days of revenue ($\text{Unbilled Debt} \times 365 / \text{Revenue}$).

This gives a good indication of how long it takes to bill customers. For non-instalment plan customers this will have a significant impact on cash collections and ultimately bad debt.

For water companies, Unbilled Debtors are taken directly from the Regulatory Accounts, where it is called the Measured Income Accrual. This figure relates specifically to measured customers. As such the revenue figure used is for Measured customers only, and is the sum of Measured Household & Measured Non-Household revenues disclosed in the Regulatory Accounts.

For non-water companies Unbilled Debtors are taken from the Statutory Accounts. Typically balances are disclosed in a combination with prepayments made by the company to suppliers. Prepayments are typically low and the figure is deemed suitable for purpose of this review. Revenues for non-water companies are also taken from the same accounts and are for the entire company.

Due to the timing of this review, figures are not available for 2016 for the energy companies sampled, as accounts have not been published.

The analysis covers the period between 2012 and 2016, subject to data availability (see page 80). The calculation method is described in Appendix 6

Sample Sizes

Water: 18
 Energy: 8
 Telco: 6
 Local Authorities: N/A

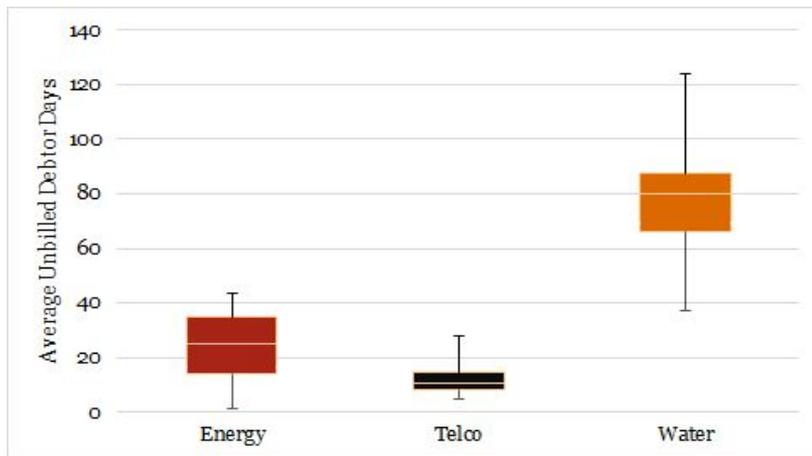
High levels of unbilled debt in water are the product of historical practices that prioritised opex over cash and bad debt

Understanding unbilled wip in the water sector:

- Wip days expresses the Measured Income Accrual as a number of days of Measured income. It is therefore a good proxy of how quickly a company bills after consumption (average days to bill). There is no unbilled revenue for Unmeasured billing as this is billed in advance.
- However, as there is no requirement to split out the Measured Income Accrual between household and non-household in the Annual Performance Report the average days to bill will be influenced upwards by household bills that are raised less frequently and downwards by non-household customers that tend to be billed more frequently (especially large commercial & industrial customers that tend to be billed monthly). Typically, we see:
 - Household customers billed 6 monthly (best possible days to bill 90 days)
 - SMEs billed 3 monthly or 6 monthly (best possible days to bill 45 or 90 days)
 - C&Is billed monthly (best possible days to bill 15 days)
- Therefore we would expect a water company with a typical balance of household and non-household debtors to be holding around 45 to 70 days of wip depending upon mix of sales by billing term.
- The standard practice of billing measured household customers every 6 months in arrears, would imply wip of around 90 days of revenue. However, companies performing above this are either:
 - Billing a high value of customers less frequently, or
 - Holding back billing in the run up to year end, or
 - Have a significant amount of billing exceptions.
- Companies performing below this are either:
 - Billing (some or all) household customers more frequently.
 - Have billing cycles that concentrate 6 monthly billing (for example) in the last three months of the year.
 - A sizeable proportion of monthly or 3 monthly billing.
- The current billing approach adopted by water companies reflects historical practices that have been driven largely by a need to minimise operating costs. However with the ever increasing focus on bad debt and cash we would argue that the time is right to start challenging the status quo to drive a slightly different agenda. This would be consistent with a regulatory push towards more consistent customer engagement.
- The trend away from billing annually in advance towards 6 monthly in arrears has impacted cash flow and bad debt as companies are waiting too long to bill and identification of payment avoidance occurs 6 months later.
- Considerations for earlier billing are not limited to simply reading meters and/or billing more frequently. Standing charges are billed in advance by some companies already while billing for estimated advance consumption charges would also seem like an option worth exploring.

Despite selling the same product on broadly similar terms there is a large variance between the best and worst performers in water

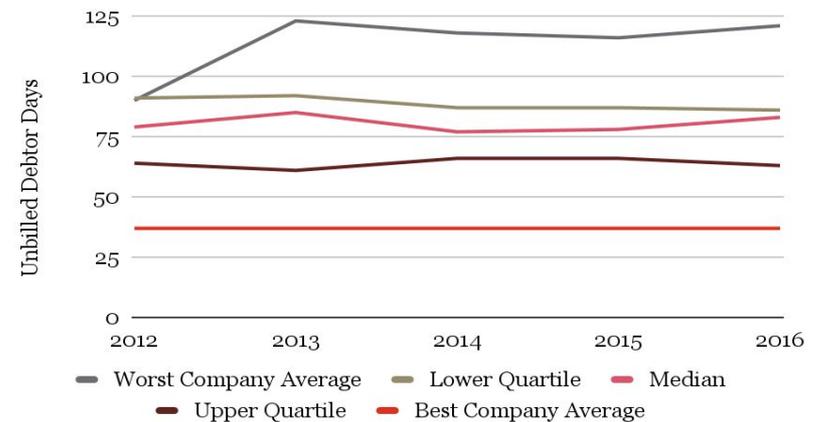
Average Unbilled Debtor Days Across Sectors



- **Best performance** in the **water** sector (**37**) is **comparable to worst performance (42)** in the **energy** sector .
- The **median** performance in **water (80)** is over **three times** the days of the **median performance in energy (25)**, and **eight times** the days of the **telco median (10)**.
- The **range of performance** in **water** is **broad** with the **best performer** at **37 days**, and the **worst performance** at **123 days**.

Note: Unbilled debt for all sectors except water, includes supplier prepayments which are thought to be insignificant.

Breakdown of water sector performance

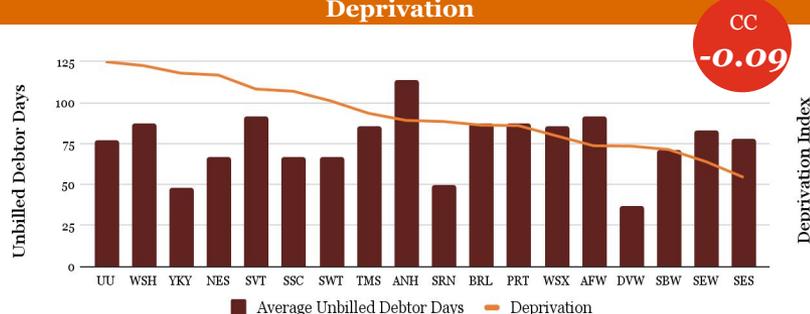


- **Performance** of unbilled debt fluctuates, with the **median** level varying between **85** and **77 days**.
- **In 2016** the gap between median and upper quartile was 19 days.
- As with the DSO metric we would class the best performers 40 days to be an outlier as it seems to be implausibly low given current practices. However a change to a more proactive billing approach as described earlier could deliver levels of unbilled debt to below 40 days achieving performance close to that of energy companies.

*Note: For water companies we've expressed the unbilled in terms of measured income to give an indication of average days to produce a bill.*³²

Relationships between unbilled debtors and deprivation levels are as expected, but not what is required

Average Unbilled Debtors vs Deprivation



Observations

There is a very weak negative correlation between the level of unbilled debt and deprivation.

This relationship, however, is counter-intuitive for the more deprived areas, as it is in these areas where we would expect higher billing frequency to result in a lower bad debt expense. This is because shorter billing cycles can result in improved collection rates for a couple of reasons:

1. Shorter billing cycles result in lower bill values.
2. Non payment is identified sooner enabling earlier application of dunning activities. As a result of earlier intervention and lower balances, the customer is more likely to be able to bring their account back in order.

However, the cash impact of shorter billing cycles will be limited by the number of customers on instalment arrangements. In these cases earlier billing will have no real bearing on the cash collection rate.

It is also worth noting that increased billing frequency can come with cost implication, as:

- A change in the approach to billing (as outlined earlier) is likely to cause initial confusion and as a result complaints/contacts;
- more bills in general result in more contacts which demand increased admin time; and
- there is a material and admin cost associated with issuing bills.

It's also worth considering that if/when switching to advance billing from arrears billing, there will be a short term impact on customers in terms of customer experience but also affordability; customers will effectively be asked to pay twice for their water. For this reason, any such transition would probably be best realised only at change of occupancy or for selective live customer groups.

So, what does this tell us?

Changing the dynamics of billing by moving all or part of a bill to advance payment is likely to have the greatest impact on cash and bad debt. More frequent billing on the other hand would create a more affordable bill and allows for earlier identification of non payment. But there are complications and costs here.

A billing approach tailored to different customers would allow the water company to strike a balance between the cost of billing and maximising recoveries.

Focus on customer prepayment



Sample Sizes

Water: 18
Energy: N/A
Telco: N/A
Local Authorities: N/A

Prepayments

Customer Prepayment Days expresses customer prepayments as a number of days of revenue ($\text{Customer Prepayments} / \text{Revenue} \times 365$).

This shows the level of customer payments made in advance of billing. Instalment plans mean that customers make payments in advance of the bill date that should clear the bill when it is raised, therefore preventing future debt.

Methodology

Customer prepayments were represented in the Regulatory Accounts of water companies in a Working Capital disclosure, between 2012 and 2015. The term used in these accounts is Deferred Income - Customer Advance receipts. For 2016 a projection has been made based on an implied relationship with measured income.

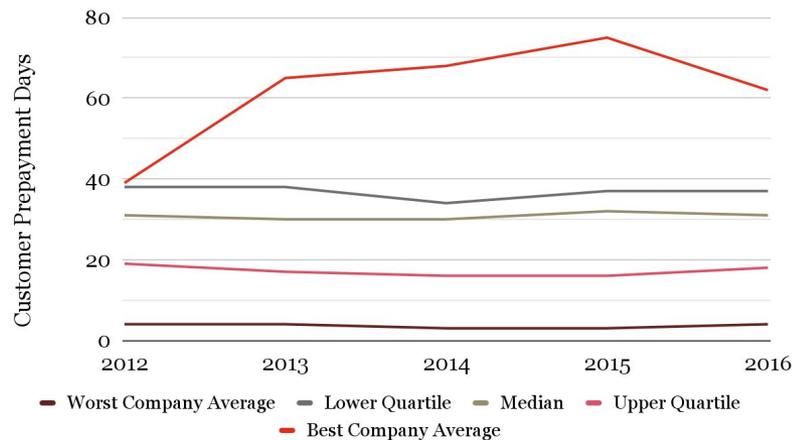
Deferred Income represents payments received from customers against which a bill has not yet been issued. Typically this will include the value of credit balances accrued by customers on a typical budget plan. These credit balances will then offset the measured bill when it is raised (typically) after 6 months.

To calculate a comparable metric across water companies this Deferred Income has been divided by total income for the year from both household and non-household customers, and multiplied by 365.

The analysis covers the period between 2012 and 2016, subject to data availability (see page 80). The calculation method is described in Appendix 6

High levels of customer prepayment are good for cash flow and allow the company to better use its resources chasing fewer debts

Customer Prepayment Days Within the Water Sector



- The **median** performer in the **water** sector holds approximately one month in advance customer payments.
- There is **wide variation** with the **best performer** holding, on average, over **18 times** the **worst**.
- Performance is typically **stable** aside from the best performer.

Note: Advance customer prepayments are only presented as a combined, household and non-household figure.

Note: Data not available across sectors.

Understanding customer prepayments

Customers make prepayments for two basic reasons:

1. Measured customers billed in arrears (for example 6 monthly in arrears) that chose to pay on an instalment plan will make monthly payments that will ultimately be cleared by the bill once it is raised. As billing cycles vary across the customer base it is assumed that the average level of prepayments would equate to half the billing cycle (3 months).
2. Unmeasured customers receive their annual bill in February or March although the bill is dated 1 April. Some customers make a payment in full in receipt of this bill. Any such payments received by the water company before year end are classified as advance receipts.

Customers making instalment payments against their annual unmeasured bill would not ordinarily be making an advance payment as the bill is technically due on 1 April*.

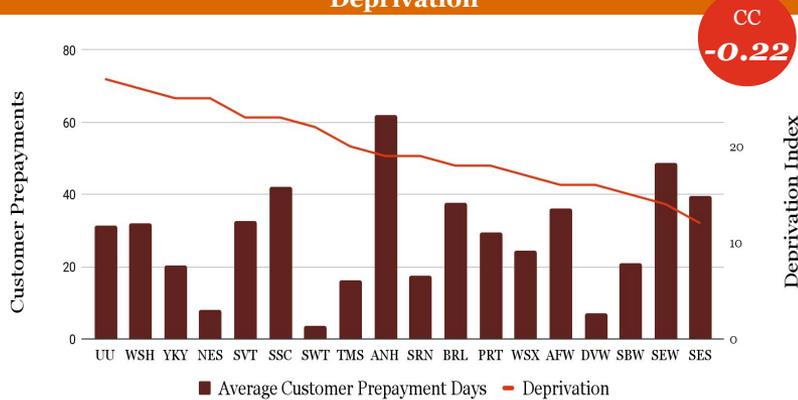
A more appropriate measure would be the amount of money collected on an instalment plan, including instalment plans for Unmeasured customers. However this data is not currently reported.

Cross sector comparisons are less appropriate due to restrictions on the water sector relating to prepayment meters, but clearly the more prepayments the better. There could be opportunities to explore discounts for prepayments. In addition, and move towards introducing advance billing will also result in higher levels of advance billing.

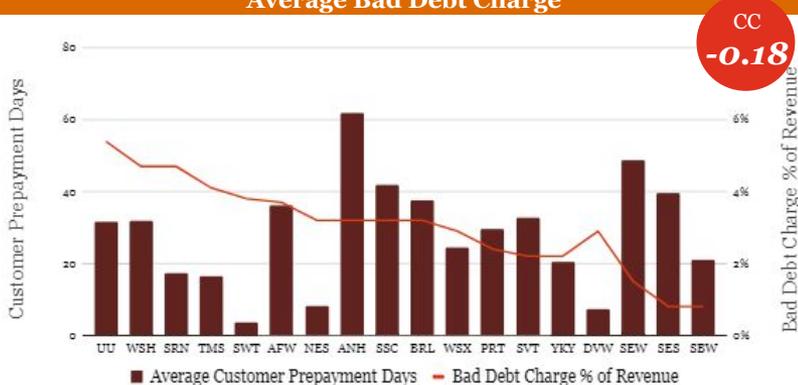
Note*: unmeasured water bills are technically due in two instalments one on the 1 April and one on 1 Oct. However an instalment plan customer will not be in a prepayment scenario unless they make an overpayment.

Relationships between customer prepayments and deprivation levels are as expected, but not what is required

Average Customer Prepayment Days vs Deprivation



Average Customer Prepayment Days vs Average Bad Debt Charge



Observations

There is a weak negative correlation between the level of customer prepayment and deprivation. Intuitively we may have expected to see a strong negative correlation between prepayments and bad debt. The fact that we are seeing only a weak correlation is probably due to:

1. Differing billing cycles and the relative mix of measured and unmeasured. Year end accounts only capture measured instalments.
2. The proportion of paying customers that are on instalment plans is likely to vary across the different regions.

The high degree of variance is striking and clearly suggests that some companies have been more successful at encouraging customers to make pre-payments.

There are opportunities for changing default billing terms to encourage a greater uptake of prepayments. This would be particularly useful in areas where arrears risk is highest.

So, what does this tell us?

The more customers that are on an instalment plan the better it is for cash flow, and the fewer customers that may ultimately require chasing via routine collection procedures.

However it is clear that many water companies are struggling to persuade customers to enter into instalment arrangements and increase the affordability of water bills.

Focus on voids



Sample Sizes

Water: 18
Energy: N/A
Telco: N/A
Local Authorities: N/A

Voids

The volume of void properties compared to the number of connected homes.

This reflects the level of unoccupied properties but may be overstated due to poor quality of customer data and the different approaches to void management adopted by the water companies.

Methodology

Voids are connected properties but with no current identified occupier.

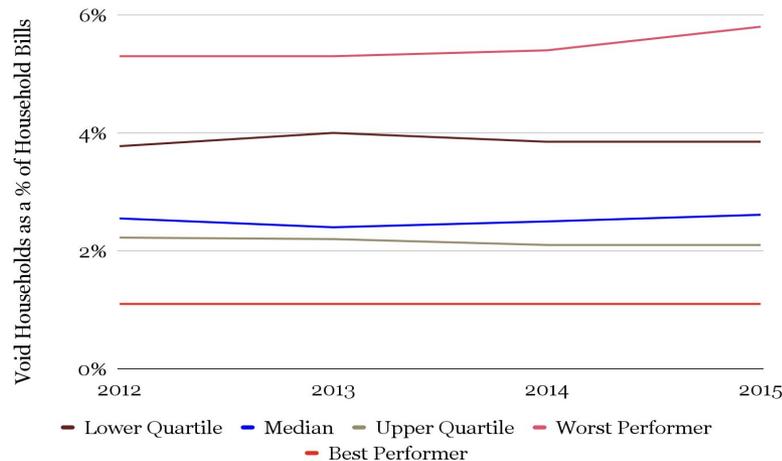
The number of void properties is provided in the Regulatory Accounts published each year by water companies, and is split between household and non-household customers. In the same disclosure the total number of identified, billed customers is provided by household and non-household.

This metric is calculated by dividing the number of void households, by the sum of the number of void households and billed households, to provide a percentage of total connected households which are designated by water companies as void.

The analysis covers the period between 2012 and 2016, subject to data availability (see page 80). The calculation method is described in Appendix 6

There are different approaches to the management of voids which are reflected in the varying levels of performance across the sector

Voids as % of Connected Households Within the Water Sector



- **Void properties** as a proportion of total connected properties has **typically increased** slightly between **2013** and **2015**.
- The **best performer** has kept a **very consistent** proportion, whilst the **worst performer** has shown a **substantial increase** between **2012** and **2016**.
- There is **wide variation** in performance with the **worst performers** typically those with **highest deprivation**.

Observations

The management of voids is one area where companies can manage the level of bad debt down in order to lower customer service costs. This is achieved by increasing the number of households designated as void, and for which no billings attempts are made. These properties are therefore not considered as bad debt. In short, companies have 2 options with void properties:

- Minimise the number of void properties by identifying occupancy and/or consumption and issuing a bill. This approach might be used by a company wishing to maximise cash or turnover
- Manage void properties to minimise cost and bad debt. In this situation companies may not be in a hurry to bill. Firstly they may prioritise investigations to minimise cost. Secondly, they may only seek to bill customers where the chance of recovery is equal to or better than the portfolio average.

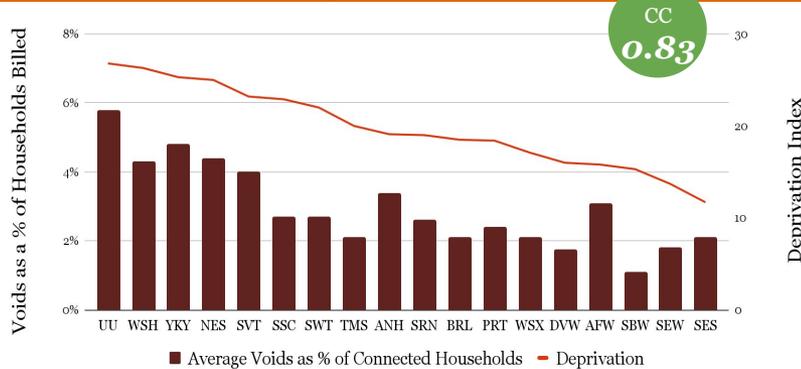
The management of void properties is not just an issue within the water sector. It could provide an opportunity to increase the level of data share with both third parties and other utilities facing similar challenges.

So, what does this tell us?

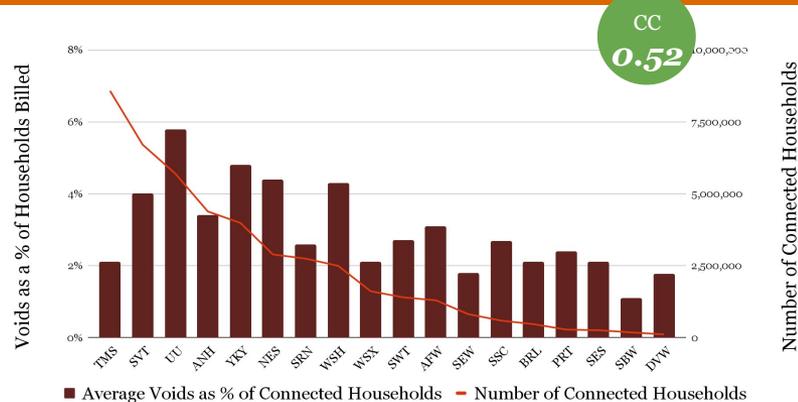
Benchmarking void properties needs to be an important component when considering bad debt performance as this may be being used as a means of avoiding a bad debt charge.

In areas of high deprivation, some companies may be choosing not to bill certain customers rather than incurring a bad debt cost

Average Voids as a % of Total Connections vs Deprivation Index



Average Voids as a % of Total Connections vs Total Connected Households



Observations

A key component in debt management is data quality. In particular the degree to which the company knows its customers, particularly in water where due to the need to maintain a constant supply, not knowing customers generates bad debt and an ongoing operational cost.

A good measure of this particular feature of company practice is the relative number of connected properties which are deemed void (i.e. households where the status of occupancy is unknown).

This measure shows a strong correlation with deprivation indices, suggesting that there are greater volumes of voids in areas of greatest deprivation. Tackling this issue, from our experience within the water sector, is likely to be key, as clearly there is a greater propensity for higher underpayment in areas of deprivation anyway.

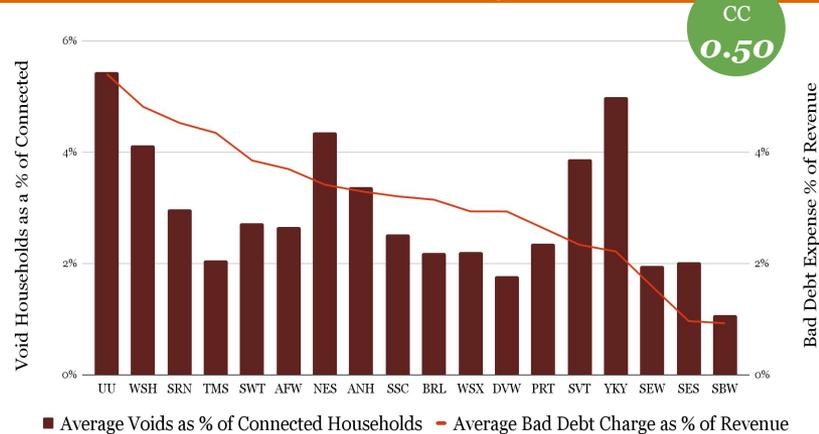
There is a strong correlation between the proportion of connections which are categorised as voids and company size. Some companies clearly outperform their size-ranking suggesting that scale should not be a major hindrance to improvements.

So, what does this tell us?

Whilst the data is not conclusive, some water companies may be choosing not to bill a property where they believe the chances of payment to be low. This is likely motivated by a need to minimise Customer service costs.

The correlation between voids and bad debts is likely to be influenced by poor data and different approaches to void management

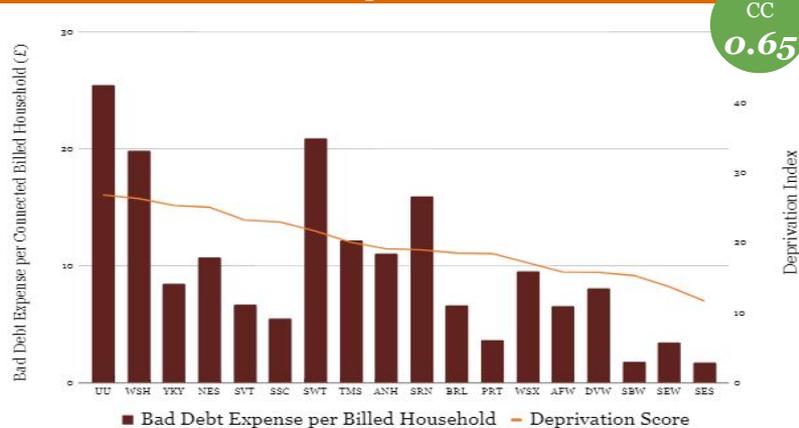
Voids as % of Connected Households vs Bad Debt Charge



Whilst there is a strong correlation between the bad debt charge and the level of void properties, there are a few significant exceptions. This hints at different treatment of void properties between companies which, in some circumstances has a positive impact on the level of bad debt reported.

The relationship between voids, bad debt and deprivation is further shown by bad debt expense per billed household. There is a strong relationship between bad debt charge per billed household and deprivation, and the mutual correlation with voids suggests that information quality is a contributing factor too.

2016 Bad Debt Charge per Billed Household vs Deprivation



So, what does this tell us?

The correlations here are quite compelling suggesting voids and deprivation to be key areas of focus for understanding bad debt performance in the sector.

It may be that reducing the number of void properties results in an increase in bad debts. But it has to be “the right thing to do”. By improving data quality, deploying a strong collection process and supporting customers in need, water companies could achieve a better balance between cash and bad debt.

Debt Management Benchmark Summary of Findings

The tables below present a summary of the findings from our benchmark analysis on the following pages. The summary only shows metrics that can be benchmarked across sectors.

Metric	Water	Energy Utilities	Telcos	Local Authorities
Bad debt charge as % of Revenue	3.2%	1.5%	0.8%	0.8%
DSO	39	29	30	10
Doubtful debt as a % of net debtors	86%	23%	19%	n/a
Unbilled Debtor Days	80	25	10	n/a

**Note: The above is based upon average median performance across the benchmarked period.*

Water Sector Metric	Variable	Correlation
Days sales outstanding	Deprivation	(0.09) = Weak
Bad debt charge as a % of revenue	Deprivation	0.61 = Strong
Unbilled debtor days	Deprivation	(0.09) = Weak
Voids as a % of connected households	Bad Debt Expense	0.50 = Strong

Conclusion from the Benchmark

Overall, water companies are outperformed in every metric by their peers in other utilities and local authorities. However, given the differences in operating models, regulation and legal frameworks, this should not be entirely unexpected. However, we would challenge that the gap between water companies and other utilities could be closed by improving the areas that are within the control of the water companies.

There is a strong correlation between the bad debt charge and the level of deprivation although there are some companies that are achieving low bad debt charges despite having high levels of deprivation. However, it is possible that some of these exceptional performers may be deploying a different approach to void management that results in higher levels of voids but lower bad debts.

The absence of any other strong correlations with either deprivation or number of connected properties suggests these are all measures that all water companies irrespective of size or deprivation levels has the ability to improve upon.

Despite the lack of a strong correlation in some areas, there is still a very wide variance in performance across all the measures, indicating that some companies are simply better at billing and collecting debts compared to other companies in the sector.

Compared to other sectors (where comparisons were possible) the water sector is generally outperformed in every measure.

- Billing - water companies hold higher levels of unbilled due to longer billing cycles.
- Collections performance measures -in our qualitative assessment, we have compared debt management practices with other sectors
- Bad debts - data quality is a challenge for water companies. Not only does it result in high levels of voids it also makes debt collection and recovery very difficult. As a result water companies hold significantly more doubtful debts and write off significantly more too.

It is challenging to compare performance across all measures until there is a more consistent approach to managing voids and providing for bad debts. However, the benchmarking suggests that improvements can be made in the sector. Although achieving improvements in levels of bad debt will be harder for some companies than others, due to:

- The prevailing level of deprivation, and
- The degree of improvement required to move from the current bad debt levels towards a new target level. It will most likely take longer for a company with say 3% bad debt to achieve the aspirational performance than a company that is already delivering 1%.

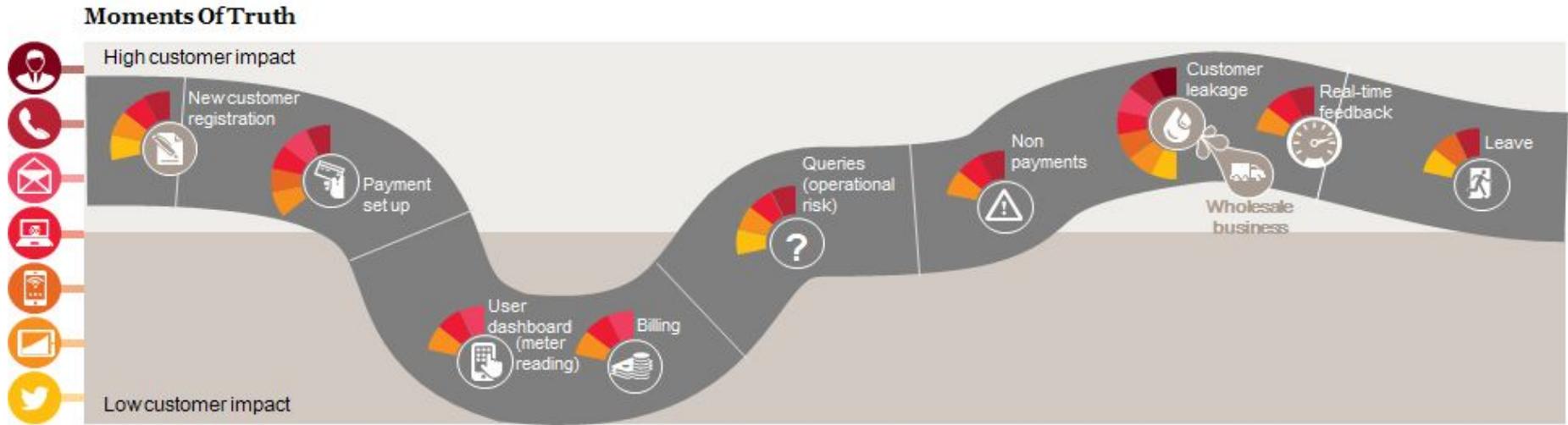
Debt Management Qualitative Assessment

Keeping debt management front of mind throughout the Moments of Truth is vital to efficient debt management

The following are 5 key management areas we use to assess the management of debt throughout the customer journey:

Risk mitigation	Affordability options	Routine collections	Late stage recovery	Data quality/validation
-----------------	-----------------------	---------------------	---------------------	-------------------------

For example	<p>Data quality and validation at the start is vital to identify potential underpayment early.</p>	<p>Prepayments, flexible direct debits, accurate billing, credit checks and setting up the correct tariff all help companies to mitigate the risk of non-payment. Ensure that support is signposted for those in need.</p>	<p>Proactively identifying Affordability customers, or using arrears matching schemes can help to support customers in debt.</p>	<p>Although late stage recovery has some limitations, increased use of field collections and litigation can help collect delinquent debt.</p>
-------------	---	---	---	--



By segmenting your customer base using data collected throughout the customer journey, including real-time feedback, you can tailor your **routine collections** to individual customer segments in order to maximise cash collection.

To what extent do companies utilise the management approaches that are taken across utilities and council tax?

In order to undertake a qualitative assessment we have considered how each sector manages the key debt levers across each of the main areas of order to cash. Some organisations will be able to use existing capability to deliver improvements, whereas some areas may require new capabilities to be developed. *See appendix 5 for further details on each of these sections.*

Risk mitigation	Affordability options	Routine collections	Late stage recovery	Data quality/validation
Credit checking	Low income tariffs	Tailored collections	Disconnection	Validate with external sources
Pre-payment	DWP direct payments	Outbound dialler	Litigation and Default	Control over new customer set-up
Controlled spend/credit limits	Bursary schemes to help customers clear arrears	SMS	DCA	Proof of ID
Usage alerts	Arrears matching schemes	Voice Blast	Debt sale	Manage former accounts
Security deposits	Recurring Credit Card payments (Continuous authority)	Out of hours calling	Trace & collect	
Stopping supply	Proactively identify vulnerability/affordability	Utilise digital contact methods	Enforcement	
Flexible direct debit incl weekly takes	Engage with third party organisations such as Money Advice Service and local CABs	Speech analytics	Field collections	
	Field engagement campaigns	Data sharing		

How do these management approaches vary both within the sector and compared to other sectors?

We have considered how the different sectors typically approach each of the key drivers of debt and presented these side by side for comparison purposes.

	Water	Energy	Telco	Local Authorities
Risk mitigation	Limited	Pre-pay meters Security deposits Disconnection Credit Scoring on Acq.	Risk segmentation, Usage caps, Prepayment, ID validation; Refusal of service/disconnection	Limited
Affordability options	High priority Broad range of options Under utilised	Warm Home discount reactively offered to eligible homes	Wide range of tariff options to suit different customers	CT Reduction (benefit) offered for low income Subject to anti-poverty policies
Routine collections	Typically unsophisticated based on limited segmentation. Relatively low use of sms and other digital channels	More tailored to segment. Better use of sms and other digital channels	Tailored to segment/risk. Widespread use of digital channels	Good use of behavioural marketing Rapid escalation of non payment
Late stage recovery	Historically has been limited due to concerns about SIM and reputation limiting use of Litigation & default registration. High reliance on DCA. Some door step visits	Prepayment Meter installation, DCA, litigation and enforcement used	Tendency to use limited DCA before moving to litigation and/or debt sale	Litigation and enforcement widely used
Data quality / validation	Limited control Limited validation Poor data	Better validation; Better control over new customers Final Debt remains a problem	Credit checking & Proof of ID for new customers	DPA concessions allow data sharing with other councils. Access to LA administered benefits data

Executive Summary	Approach	Benchmark	Assessment	Considerations	Approach	Benchmark	Assessment	Considerations
-------------------	----------	-----------	------------	----------------	----------	-----------	------------	----------------

What are leading practices in other sectors?

Area	Energy	Telecommunications	Local Authorities
Risk mitigation	Main suppliers can't refuse supply but can demand prepay and/or Security deposits Prepayment meters used to mitigate risk but not effective at for arrears recovery	Usage limits for early warning/control Risk based pricing/terms Security deposits may be required as a means of mitigating risk Remote disconnection/disruption limits risk & encourages compliance	Not applicable
Billing	All customers are billed in arrears, typically after 3 months	Line rental billed in advance; usage billed in arrears. Mobile billed in advance	Council tax is billed annually in advance but customers are entitled to pay in 10 monthly instalments
Payment methods	New entrants are able to dictate terms for new customers eg. Direct Debit a prerequisite Energy companies encourage direct debit by offering discounted direct debit tariffs to all customers	Direct debit is the default option and a prerequisite for some providers	A Council tax reduction is available for qualifying low income households
Routine collections	Tailored collection approaches; Data share	Tailored omni channel collection approach; Data share	One Final demand issued. Subsequent late payment results in a summons
Late stage recovery	Preferred route is litigation; disconnection is the ultimate sanction Data is typically shared with DCAs	Non payment dealt with decisively. May place with a DCA but ultimate sanction is disconnection and debt sale Data is typically shared with DCAs	There is the threat of prosecution through criminal channels but is not widely used Instead the use of bailiffs and Civil litigation channels is preferred Good use of AOE and AOB taking advantage of the prioritisation of tax debts
Data validation and customer acquisition	Identity of customers generally validated on move in	Generally validate/credit check on opening account; usually ID would be required	Customer data is routinely validated through periodical customer declarations

What are the potential improvement opportunities within the water sector?

The leading practices across energy, telco and local authorities as outlined previously are, on the whole, transferable across industries. The majority of potential improvements are within the control of management although consultation with Ofwat and/or CC water is likely to be required. In addition, the implementation of a number of these would need meticulous planning to ensure they're implemented in a way that maximises benefit and minimises negative customer experience.

As seen in the benchmarking section of the report; the water sector has a varied level of performance. Therefore any potential improvement opportunities will have a varied impact depending on the maturity of the existing debt management practices.

Area	Potential improvement opportunities
1 Customer Acquisition (MIMO)	Identify incoming customer/validate outgoing customer on move in. Request ID for sign up and require proof of occupancy/ownership for new supply, Use external data to validate identity.
2 Affordability	Identified proactively using D&A insight/external data; use of marketing and BE to achieve a better cross subsidy outcome; establish self funded tariffs; Proactively move customers onto schemes based on this data
3 Billing	Billing strategies tailored to different customer segments; Bill standing charges (and potentially consumption) in advance; Bill customers more frequently; Increase smart metering
4 Payments	Treat Direct Debit as default payment option; Move to assumed instalment plans; Use Continuous Authority (recurring credit card); consider how payment cards/books can be replaced by other more reliable (and lower cost) methods of payment
5 Routine collections	Collection strategies tailored to different customer segments; use CRA full data sharing to encourage prompt payment; offer prompt payment discounts
6 Late stage recovery	Recovery strategies tailored to different customer segments;

Debt Management Considerations

The current principles are generally good but ‘expectations’ could be better articulated to reflect the needs of good collections practice

We have reviewed the Ofwat guidelines for dealing with customers in debt, and provided recommendations against each of the 5 principles.

	Principle within guidelines	Recommendation	
1	Companies should be proactive in attempting to contact customers who fall into debt as early as possible and at all stages of the debt management process.	Differentiate between customers on agreed instalment plans, those paying in full and those that have not indicated an intention to pay. For some customers on instalments a gentle reminder on or before the due date is entirely appropriate and helpful to the customer. Emphasise the need for collection and recovery paths tailored to different customer circumstances and use a wide range of communication channels.	3 5 4 6
2	Companies should provide a reasonable range of payment frequencies and methods for all customers. The entire range of options should be properly and widely advertised to ensure that customers can select the arrangement which best suits their circumstances.	Payment cards are outdated and costly to administer. They also make it easier for customers to forget to pay and to fall into arrears. The emphasis should be on making it easy for customers to pay in a timely manner. Emphasising automated payments such as direct debit or Continuous Authority (recurring credit card payments) and instalment frequency.	4
3	All correspondence sent to customers should be written in plain language, be courteous and non-threatening but should clearly set out the action which the water company will take if the customer fails to make payment or contact the company, along with the possible consequences for the customer.	For a collection approach to be effective there will need to be an element of consequence which naturally implies an element of threat. However, because there is minimal segmentation we see that companies are threatening inappropriate consequences such as litigation for customers with neither employment or assets.	2 6
4	When agreeing payment arrangements with customers, the customer’s circumstance should be taken into account where possible.	Too many plans are agreed that don’t cover consumption, so customers are getting more into debt. There should be greater emphasis on helping customers out of debt. Therefore, if the customer truly can’t afford to pay the instalment amount, an affordability scheme should bridge the gap.	2 4
5	Customers whose accounts are managed by debt recovery agents or some other form of billing agent should where practicable receive the same level of service and care as those whose accounts remain with the water company. The potential consequences of having their debt managed by a third party should be no more severe than if the service was provided directly by the company.	These are important considerations and the latest FCA requirements should offer enhanced protection for customers. However, we think the emphasis here needs to be around the appropriateness of all late stage recovery actions including the use of door step visits, litigation, DCA and debt sale.	6

Please refer to page 48 for further details on how these principles and recommendations relate to areas of potential improvement.

The current principles don't set an expectation around billing and data quality which are key drivers of debt performance

In addition to the existing principles we would propose adding in one further principle.

“The water company is expected to proactively identify and validate occupancy to ensure that, to the best of their abilities, all households that are consuming water are billed accordingly”, the expectations should include the following points:

1. Where water is being consumed the water company must make every reasonable effort to validate the identity of the customer so that a Bill can be issued.
2. All new connections should be validated using a variety of data sources (including CRA data) to confirm the identity of the customer.
3. Any existing connected properties that are not engaging should be periodically investigated to determine that the correct customer is being billed.

By getting the bill right first time it will improve not only the customer experience but will also improve collection rates. Although not a separate principle as part of this, we would encourage an increased focus on tailored billing. By leveraging customer segmentation as part of a wider tailored collections approach, companies can improve collection rates by improving billing practices.

We have provided considerations for an approach to assess company capability that is highly flexible across sectors

Purpose of the approach

The approach enables an assessment of each company’s approach to managing bad debt but ultimately must be about encouraging the right behaviours within water companies. Whilst we are focussed on reducing the amount of debt that a company writes off, this has to be within the context of maximising cash collections.

Our considerations are grounded in the following design principles:

- It should be objective, specific & measurable;
- It considers the end to end process from customer set-up to cash collection, across which there are many levers that impact collection rates;
- It contains relevant quantitative measures of performance for debt management, balanced against qualitative measures; and
- The approach should also consider how to treat any change initiatives companies have underway that will influence future debt management performance.

Objective, specific and measurable:

By constructing an approach that is objective, specific and measurable, a company could self-assess and provide evidence for their assessment.

In the short term, Ofwat may decide to set performance standards against these measures to help determine how well a company is performing. However over time, these standards will need to be refined to reflect the transition of water companies through an evolutionary process. That is to say, as they get better over time, the standards that represent best practice should naturally become higher and higher.

Approach

The following page contains a set of Debt Levers that enable an objective assessment of a company's level of maturity in debt management. In addition, the below key metrics (used in this report) would give a good understanding of performance across the end to end process. We would suggest that a balance score card is created against these various measures and inputs to produce an overall single measure of maturity and therefore management effectiveness.

- | | |
|--------------------------|------------------------|
| • Days sales outstanding | • Unbilled debt |
| • Doubtful Debt | • Customer prepayments |
| • Bad debt charge | • Voids |

Any data or analysis provided against this assessment approach must clearly distinguish between Household and non-Household customers. In addition we would recommend that OFWAT define clear definitions and data sources/criteria for each measure that they gather such that benchmarking is fair and comparable.

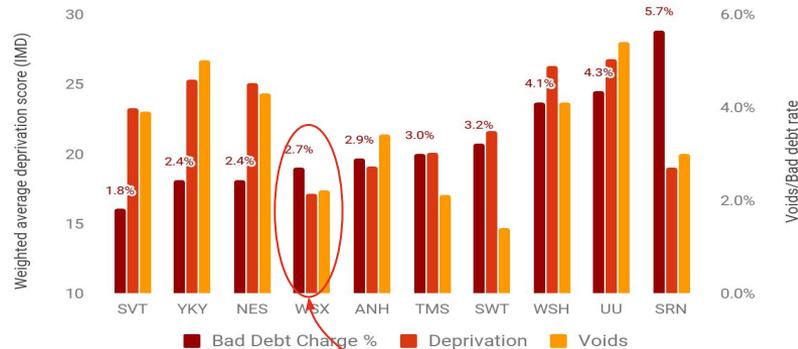
An assessment approach needs to challenge how well companies address the key levers of debt

	Debt lever	Example metrics
1	The extent to which customer data is proactively captured & validated to enable accurate billing	% of customers with validated data
2	The approach adopted by companies to minimise void properties	No. of Void properties No. void visits/assessments
3	The extent to which companies can demonstrate they tailor billing strategies to optimise cash collection and minimise bad debt	Wip days
4	The extent to which companies are successful at helping Affordability customers	No. customers on tariffs No. on other schemes
5	How effective the company is at encouraging customers onto instalment plans (budget plans rather than debt repayment plans)	No. & £ of customers on inst. plans
6	The level of debt/revenue that is suppressed for collection contact meaning that no collection contact occurs (known as a dunning lock) and cannot be collected	No. & £ of suppressed bills No. & £ of bills on dunning lock
7	The extent to which customers are using automated payment methods (DD, SO, Continuous authority)	No. & £ of customers on auto pay No. & £ cust. on pay cards/books
8	The approach used to maximise the effectiveness of dunning (debt collections)	£/% of debts > 90 days old
9	The effectiveness of the company's approach to late stage recovery	£/% of debt > 91 days (delinquent) £/% of delinquent debt by status
10	The extent to which companies are delivering consequences for non payments. What measures are used and how effective they are.	No & £ of debt in Legal No & £ of debt in default
11	The extent to which overdue customers are engaging with companies	No & £ of debt on repayment plans No & value on 'low value plans'* Avg repayment period

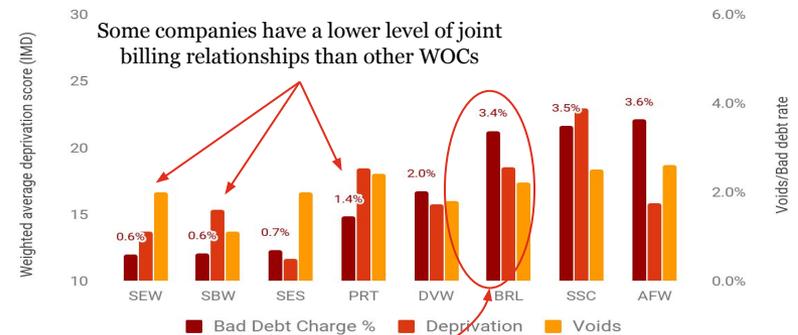
Note*: Low value plans are below the value required to cover future billings meaning the customer is likely to continue to build arrears

Frontier performance in the sector is 0.6%, however there is significant variance between WOCs and W&SCs

Water and Sewerage company performance



Water only company performance



Note: Bad debt numbers are 2017. Voids are avg voids 2012-15. Deprivation is from 2015 (2001 for Wales)

Example of Joint Billing: Bristol Water, which has a joint billing relationship with Wessex. Has comparatively high levels of bad debt for a WOC

There are a variety of different arrangements in place for the billing of sewerage charges by WOCs

There is a clear difference in performance between Water Only Companies (WOCs) and Water and Sewerage Companies (W&SCs), with WOCs generally outperforming W&SCs. Deprivation is clearly a factor with WOCs generally having far lower levels of deprivation. In addition, the data suggests that where WOCs undertake joint billing arrangements for the W&SC, might have an impact on bad debts; those billing only for water can have a lower level of bad debt than some of those that have joint billing arrangements. We believe that this might be because:

1. Water only bills are broadly speaking 40-50% of the cost of the overall water and sewerage charges for a property. This reduced bill value is more affordable and is therefore more likely to be successfully collected as a result
2. These water only bills tend to be received by the customer a few days earlier than the sewerage component billed by the W&SC. This earlier billing combined with the lower billing value gives the WOC an advantage over the W&SC

Whilst management practices may also be a factor, we conclude that some WOCs have an inherent advantage over W&SCs and are therefore likely to achieve lower levels of bad debt.

Finally, as we've mentioned earlier, another key factor to consider alongside bad debt is the level of void properties. The above charts clearly show there is a wide variance in voids and some of the better performing W&SCs have some of the highest levels of voids. It is also interesting to note that WOCs tend to have fewer void properties than W&SCs.

3. Customer Service Costs

Section	Content
Approach	<ul style="list-style-type: none"> Methodology for quantitative and qualitative approach Data limitations and extrapolation Metrics and correlation
Benchmark	<ul style="list-style-type: none"> Salary costs Spans of Control Attrition Absenteeism Abandonment Rate Speed to Answer First Call Resolution Agent utilisation Wrap-Time Average Handling Time Transfer Rate Channel Distribution Inbound Automation Non-call handling time Non-call speed to answer
Assessment	<ul style="list-style-type: none"> Skills & Complexity Salary levers Opening Hours Interaction Volume Interaction Complexity Economies of Scale Sector Innovation Customer Adoption
Considerations	<ul style="list-style-type: none"> Benchmark lessons Next Steps

Customer Service Approach

To understand the customer service cost levels within the water sector it is essential to review underlying customer service metrics

Customer service costs are a considerable driver for broader cost-to-serve, which is a measure widely used across utilities and wider sectors to understand the relative cost efficiency in acquiring and servicing the customer base. However, there are no publicly available cross-industry measures available specific to customer services for either cost-to-serve or total costs. The most applicable customer service measure that allows cross-sector comparison is cost-per-contact, which is a key focus for this analysis. Both overall customer service costs and cost-per-contact are driven by the **quantitative elements** of people management, customer service, operational efficiency and channel distribution. Below is a summary of the supporting metrics that have been analysed in detail to provide a view of the relative cost efficiency of customer service within the water sector:

Cost-per-contact

People Management	Customer Experience	Operational Efficiency	Channel Performance
Salary costs	Abandonment Rate	Agent Utilisation	Channel Distribution
Spans of control	Speed to Answer	Wrap-Time	Inbound Automation
Attrition	First Call Resolution	Average Handling Time	Non-call handling time
Absenteeism		Transfer Rate	Non-call Speed to Answer

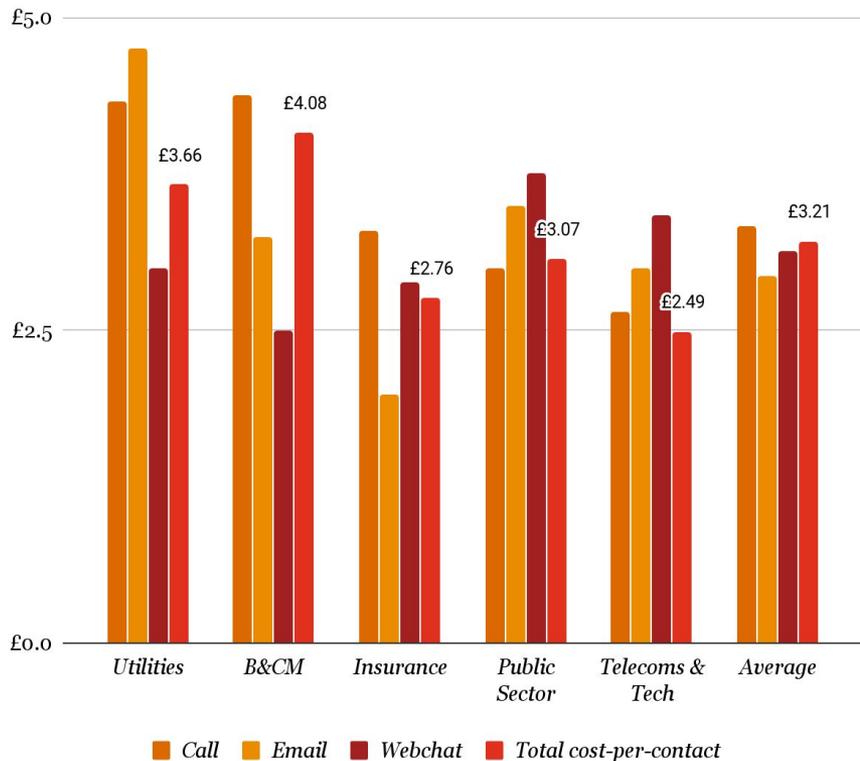
To complete this analysis, we have primarily used benchmark data from ContactBabel (The UK Contact Centre HR & Operational Benchmarking Report 2016-17) and Dimension Data (2017 Global Customer Experience Benchmarking Report), who both publish data for the utilities sector. When assessing cost efficiency, there are also **qualitative elements** of customer service that are essential to understand before drawing cross-sector viewpoints, which we have also provided analysis on:

People Management	Customer Experience	Operational Efficiency	Channel Performance
Skills & Complexity	Opening Hours	Interaction Volume	Sector Innovation
Salary levers		Interaction Complexity	Customer Adoption
		Economies of Scale	

Customer Service Benchmark

Utilities cost-per-contact exceeds comparable sectors, driven by high staffing costs, lower productivity and lower digital adoption

Cost-per-contact by channel*



Key observations against other sectors

Higher staffing costs than other similar sectors are driven by high management salaries and low spans of control

Agent productivity is impacted by longer wrap time and idle time and cost-per-call is compounded by longer average handling time than other similar sectors

Utilities customer experience indicators are inline with comparable sectors, indicating that service levels neither negatively or positively impacts customer service costs

Reduction in costs through increased telephony self-service has been tempered by a continued reliance on emails and letters

Missing data points exist for autonomous digital transactions, a service that impacts the complexity and volumes of transactions cascaded to other channels, especially if mature

Despite short handling times, digital channels have long response times and low levels of automation compared to other sectors

By matching comparable sectors, water providers could indicatively save £0.59 (Public Sector) to £1.17 (Telecoms & Tech) per contact saving 16% - 32%, assuming similar performance to wider utilities sector

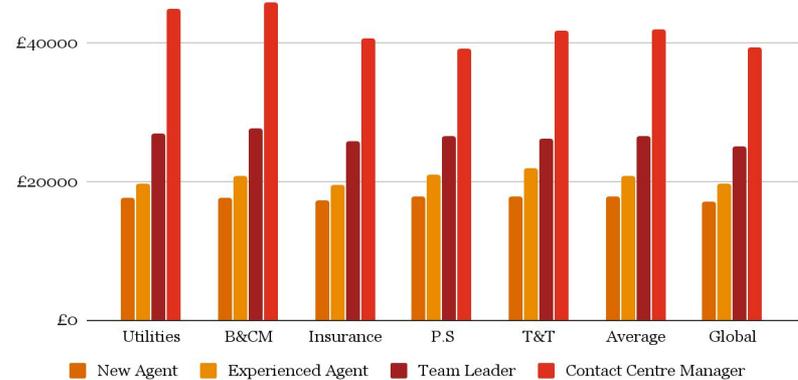
*Combined value (total cost-per-contact) calculated using ContactBabel 2014-16 cost-per-contact data, per channel, and 2016 inbound contact channel distribution

A combination of higher staff pay and lower spans of control increase the utilities sector's staffing costs against other sectors

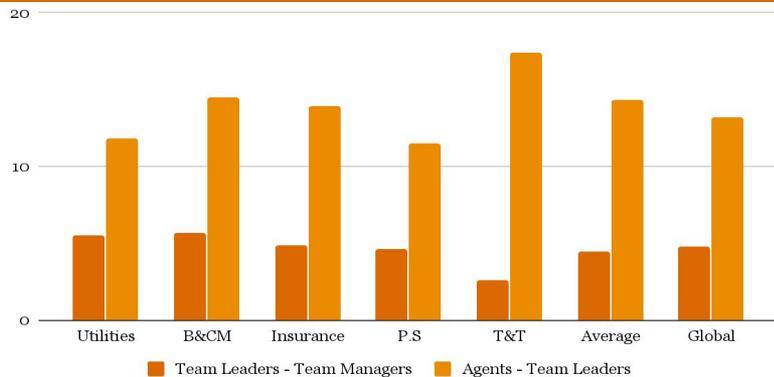
Observations - People Management

- High staffing costs, a key driver for overall customer service costs are driven by relatively high manager and team leader salaries in Utilities, £0.6k and 3.3k above cross-sector average respectively.
- Spans of control between Team Leaders and Agents are significantly below other sectors (11.8 vs 14.3).
- While attrition and absence rates appear on par with other sectors, they are higher than most sectors with cheaper cost-per-contact.

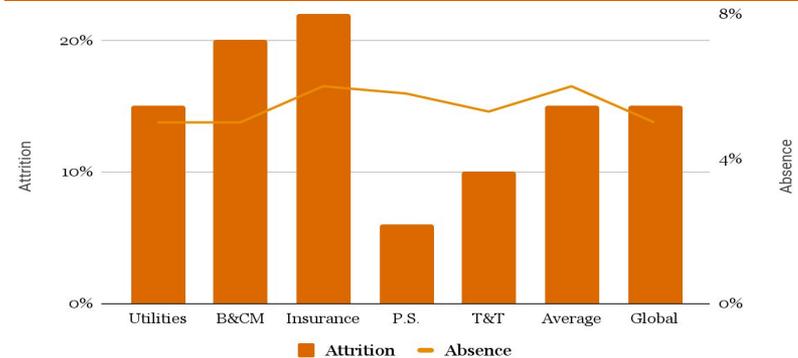
Average salaries by grade*



Average spans of control



Agent absence & attrition*



*ContactBabel - 'The UK Contact Centre HR & Operational Benchmarking Report'

So, what does this tell us?

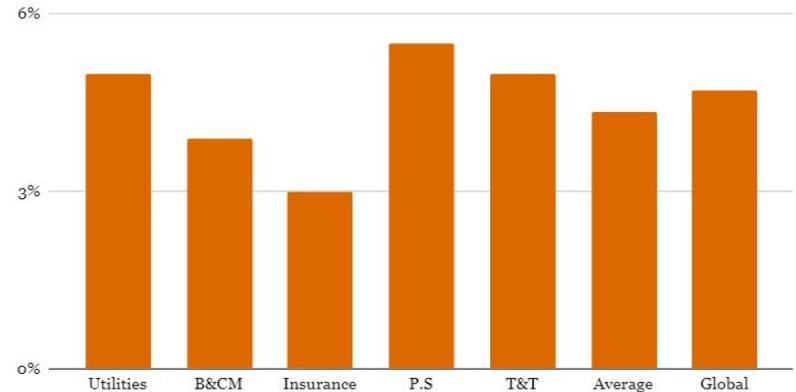
Figures show an opportunity for water providers to align their cost base with other sectors, in particular at management levels.

Service levels are largely inline with industry averages indicating that this does not significantly affect customer service costs

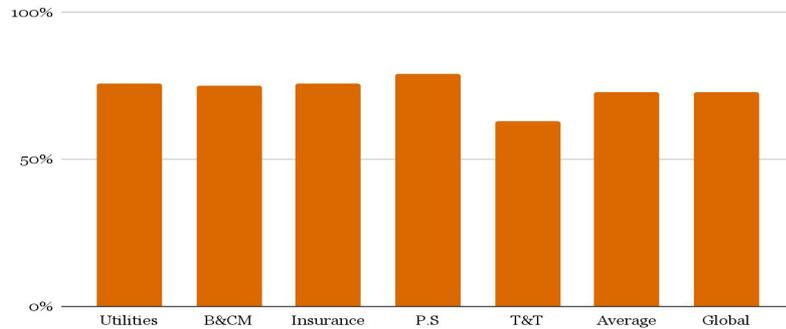
Observations - Customer Experience

- Abandonment rates and speed to answer levels are either in line with or slightly below sector averages. High service levels typically drive up customer service costs, which might explain B&CM's high call cost-per-contact.
- First Call Resolution (FCR) is slightly above sector averages and available data indicates levels are even higher in the water sector. Improved FCR supports a better customer experience and reduced cost base through lower contact volumes and therefore headcount. However, it can have limited effect on cost-per-contact metrics as changes in performance affects volumes and required headcount proportionally.

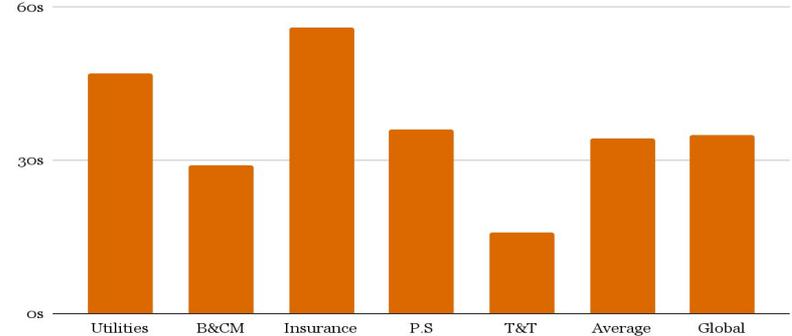
Call abandonment rate*



First contact resolution (FCR) for calls*



Average speed to answer (S2A) for calls*



*ContactBabel - 'The UK Contact Centre HR & Operational Benchmarking Report'

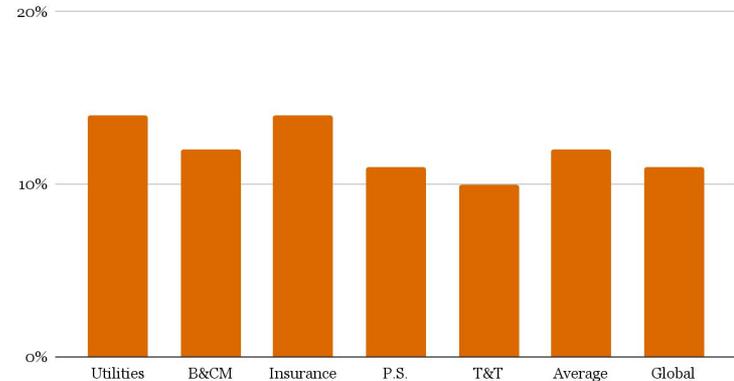
So, what does this tell us?
Water providers should maintain high service levels whilst matching performance of other sectors in call metrics.

Utilities spend less time engaging with customers, instead spending more time waiting idle for the next contact and in wrap-up

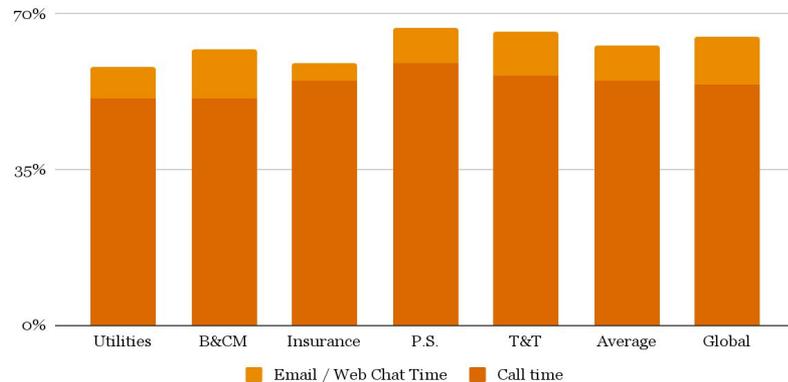
Observations - Operational Efficiency

- Overall agents in Utilities spend 5% less time engaging directly with customers, 2% more sat waiting for the next contact and 3% wrapping up calls - all contributing to considerably less time spent on valuable customer service activity.
- Improving agent utilisation / productivity is one of the main levers for customer service costs reductions and can be achieved through a variety of ways, including more effective planning and scheduling, greater process automation, agent multi-skilling and sophisticated workforce management.

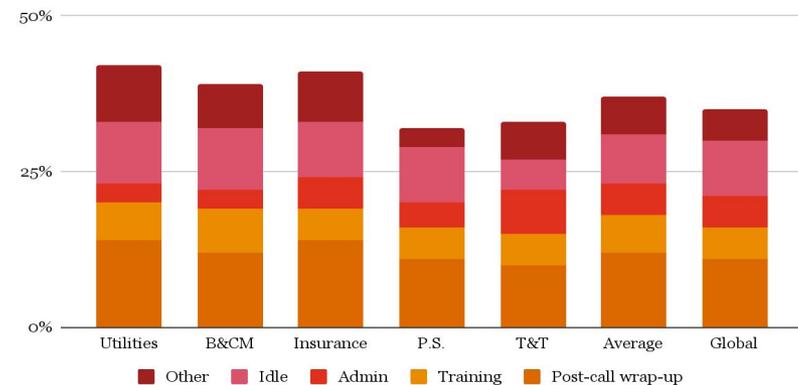
Proportion of agent time spent in contact wrap-up*



Proportion of agent time that is customer facing*



Proportion of agent time in non-contact activities*



*ContactBabel - 'The UK Contact Centre HR & Operational Benchmarking Report'

So, what does this tell us?

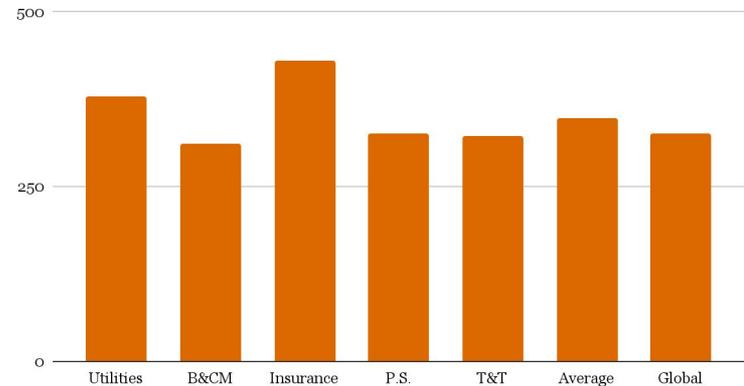
Agent productivity is an essential efficiency lever and should be optimised to align with broader sector best practice where possible.

Lower agent productivity is also impacted by long wrap-up time and high average handling time

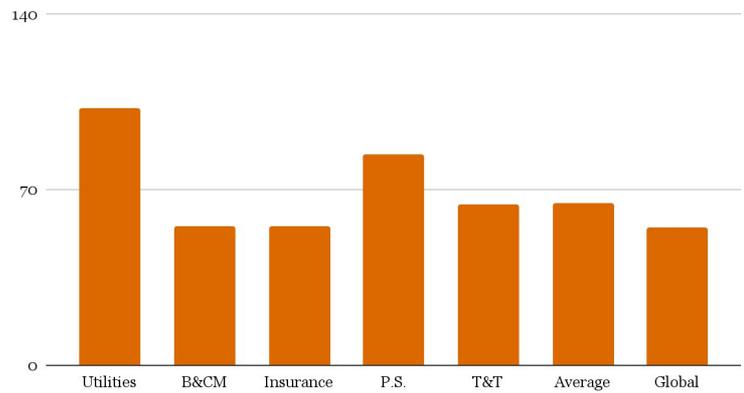
Observations - Operational Efficiency

- Efficiency of the phone channel for utilities is consistently lower than other sectors with the following performance variance to comparable sectors:
 - 60% longer wrap time
 - 10% longer average handling time (AHT)
 - 4% higher call transfer rate
- This performance drives utilities' cost-per-call of £4.33. Available water provider metrics indicate that performance is below the wider utilities sector, though lengthy call times when a homeowner moves are a significant driver of this.

Average handling time (AHT) for calls [secs]*

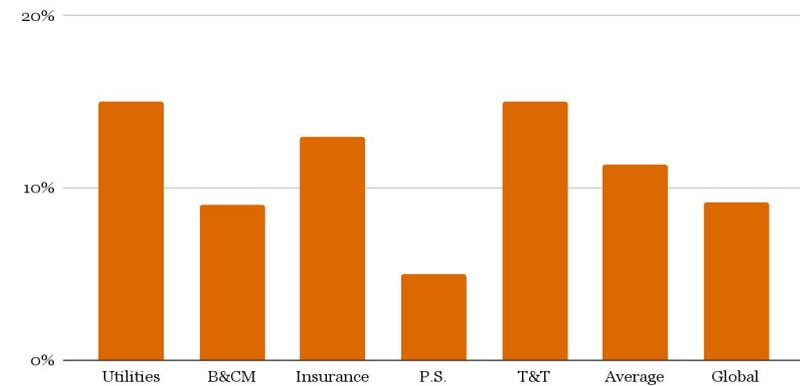


Average Wrap-up time for calls [secs]*



*ContactBabel - 'The UK Contact Centre HR & Operational Benchmarking Report'

Call transfer rate*



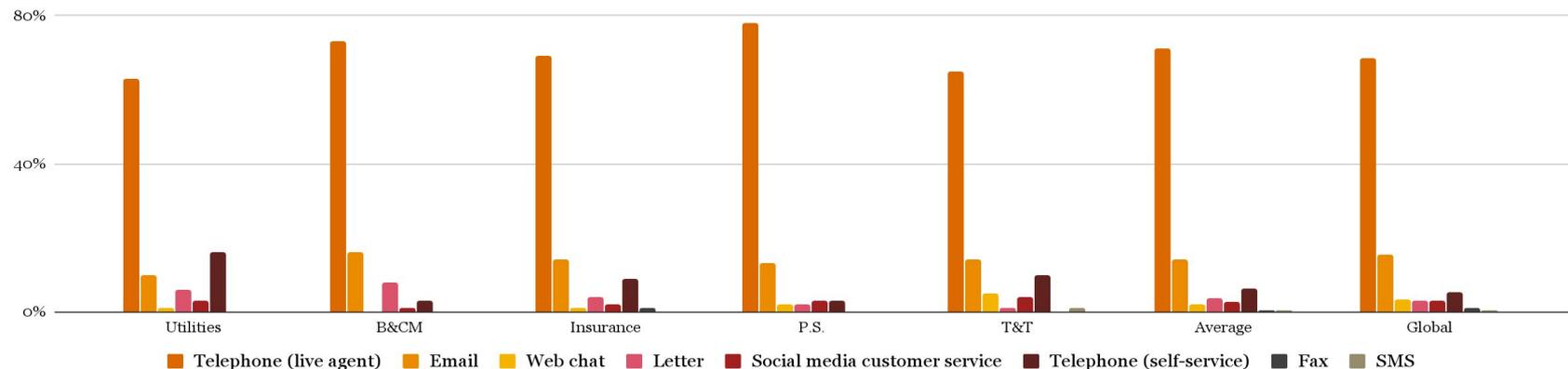
So, what does this tell us?
Water providers should optimise call performance by driving greater process efficiency and agent productivity

Despite high telephony self-service, utilities providers still rely on letter and emails, with little penetration for other digital channels

Observations - Channel Performance

- Whilst Utilities have proportionally low levels of contact across telephone (live agent) and email, these two channels represent 73% of contact and are the most expensive cost-per-contact channels, as seen in the cost-per-contact chart on p59.
- Low cost digital channels, such as web chat, social media and SMS, have had limited penetration into the Utilities sector. Other sectors, with the exception of T&T, are in a similar position.
- Although Utilities have significant levels of telephony self-service against other sectors, benchmark data does not provide information on the proportional levels of digital self-service. Without this, assumptions on the impact of telephony self-service on customer service costs should be avoided.

Distribution of inbound contact by channel, excluding Web*



*ContactBabel - 'The UK Contact Centre HR & Operational Benchmarking Report'

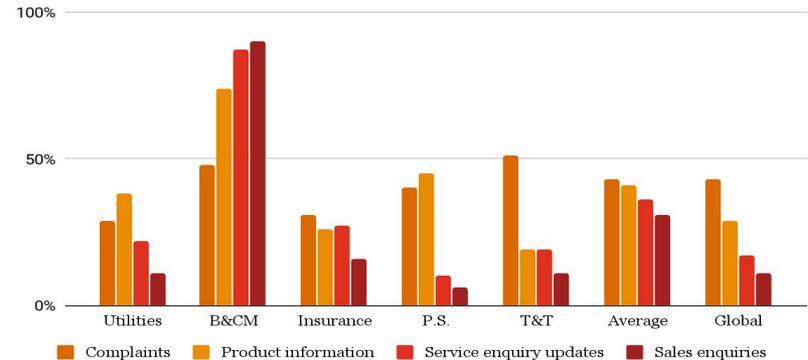
So, what does this tell us?
Water providers should pursue opportunities to further increase channel shift contact towards lower cost channels.

Despite low adoption, digital channels have short handling times but suffer from low levels of automation and high response times

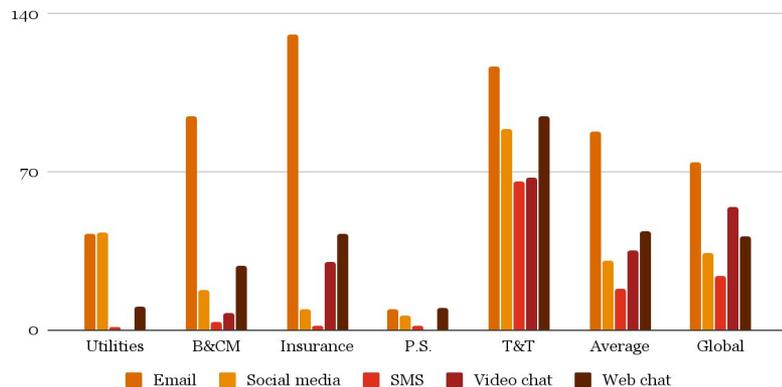
Observations - Channel Performance

- Levels of automation for inbound contact are considerably below sectors averages across all interaction types.
- Despite low automation levels, handling times are below sector averages, with the exception of email. Whilst this may indicate efficient processes, it may also be driven by low level of interaction complexity.
- Service levels for digital channels are considerably lower in utilities, with email response times 3x the average. T&T on the other hand has the lowest response times and greatest distribution towards digital channels.

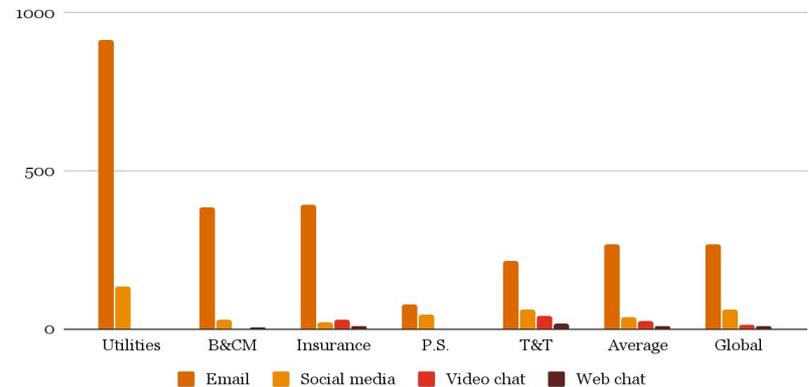
Degree of automation across inbound contact types*



Average handling time for non-call channels [mins]*



Average response time [mins] for non-call channels*



*ContactBabel - 'The UK Contact Centre HR & Operational Benchmarking Report'

So, what does this tell us?

Whilst automation and greater digital channel adoption offer cost saving opportunities, customer experience should not suffer and may improve for some segments.

Customer Service Assessment

Public Sector is the most comparable sector to water but with a substantially lower cost-per-contact

Overall Comparability	Wider Utilities	B&CM	Insurance	Public Sector	T&T
Channel Performance	Sector Innovation	Sector Innovation	Sector Innovation	Sector Innovation	Sector Innovation
	Customer Adoption	Customer Adoption	Customer Adoption	Customer Adoption	Customer Adoption
Customer Experience	Opening hours	Opening hours	Opening hours	Opening hours	Opening hours
Operational Efficiency	Interaction Volume	Interaction Volume	Interaction Volume	Interaction Volume	Interaction Volume
	Interaction Complexity	Interaction Complexity	Interaction Complexity	Interaction Complexity	Interaction Complexity
	Economies of Scale	Economies of Scale	Economies of Scale	Economies of Scale	Economies of Scale
People Management	Salary Levers	Salary Levers	Salary Levers	Salary Levers	Salary Levers
	Skills & Complexity	Skills & Complexity	Skills & Complexity	Skills & Complexity	Skills & Complexity
Key	Qualitative characteristics where the sector is very similar to water	Qualitative characteristics where the sector is similar to water with some differences	Qualitative characteristics where the sector is notably different to water		

So, what does this tell us?

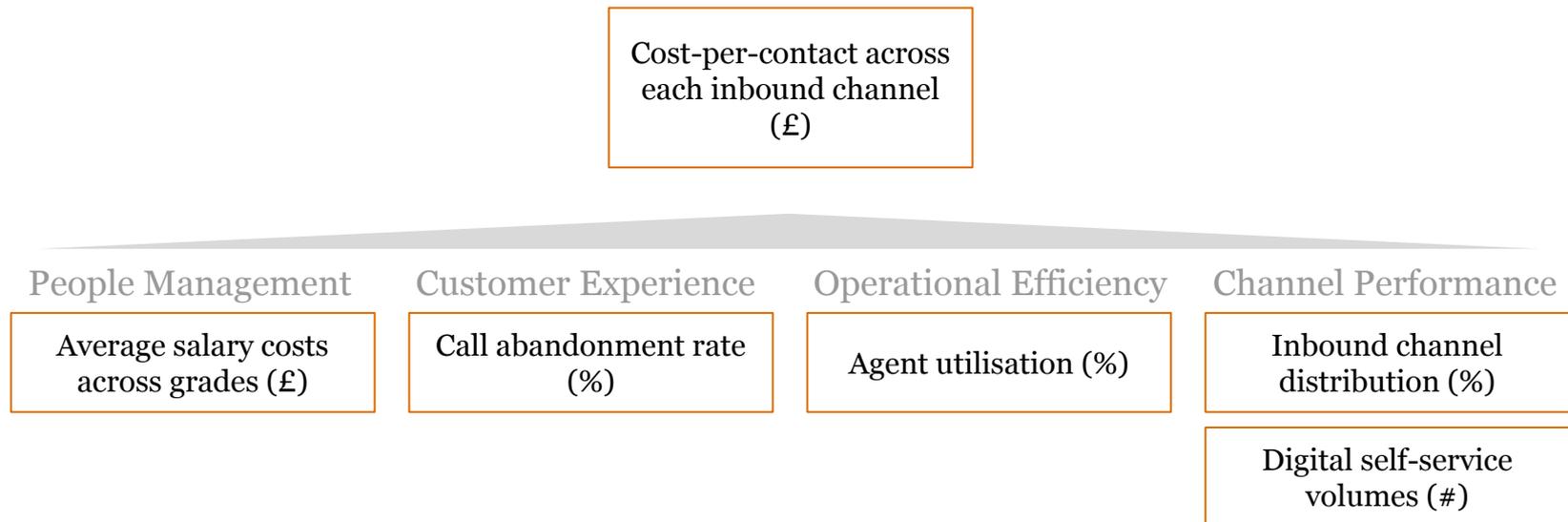
Qualitative factors impact a sector's ability to reduce Customer service costs and should be factored in when cost efficiency targets are set.

Customer Service Considerations

Based on the findings, the following steps are recommended to support the upcoming PR19 process

Due to lack of publicly available data specific to the water sector, the majority of observations are based on overall utilities performance. In this regard, benchmarkable metrics indicate that customer service costs across utilities are higher than comparable sectors. Furthermore, the available data points for water providers indicate that specific sector performance is typically in line or worse than the broader utilities sector.

As a result, the primary recommendation to support PR19 is to collect data from water providers across a targeted set of metrics that will allow for robust benchmarking of customer service functions' cost efficiency against industry-wide best practice. The following metrics are proposed for collection:



4. *Appendices*

Appendix 1

Water Company Acronyms

Acronyms

Reference	Water Company	Reference	Water Company
AFW	AFFINITY WATER LIMITED*	SEW	SOUTH EAST WATER
ANH	ANGLIAN WATER SERVICES LIMITED	SRN	SOUTHERN WATER SERVICES LIMITED
BRL	BRISTOL WATER PLC	SSC	SOUTH STAFFORDSHIRE WATER PLC
DVW	DEE VALLEY WATER PLC	SVT	SEVERN TRENT WATER LIMITED
NES	NORTHUMBRIAN WATER LIMITED	SWT	SOUTH WEST WATER LIMITED
NWT	UNITED UTILITIES WATER LIMITED	TMS	THAMES WATER UTILITIES LIMITED
PRT	PORTSMOUTH WATER LIMITED	WSH	DWR CYMRU CYFYNGEDIG
SBW	BOURNEMOUTH WATER LIMITED	WSX	WESSEX WATER SERVICES LIMITED
SES	SUTTON AND EAST SURREY WATER PLC	YKY	YORKSHIRE WATER SERVICES LIMITED

Appendix 2

Glossary

Glossary - Debt Management

Term	Definition
CAIS	Credit Account Information Sharing; a data sharing arrangement with Experian.
CCE	Cash Conversion Efficiency; a measure of cash flow performance which compares operating cash flow to operating profit. This is calculated as a percentage of operating cash flow divided by operating profit.
DD	Direct Debit
DSO	Days Sales Outstanding; a measure of debtor management performance which expresses how many days of revenue is held as trade debtors.
Dunning activities	The methodical and progressive series of activities aimed at communicating the need for payment on outstanding debts to customers.
DWP	Department of Work and Pensions
KPI	Key Performance Indicator; a metric used to described a significant process of measure of performance.
LA Schemes	Arrangements where local authorities take responsibility for collecting water debts from council tenants; also incorporates Housing Associations.
Nudge	Subtle messages designed to change behaviour
Ofwat P&E	Ofwat Principles and Expectations on debt management
PR14 & PR19	Price Review period commencing FY 2014 & FY 2019
SO	Standing Order
Telcos	Telecommunications companies, including fixed and mobile telephone and broadband providers.
Wip	Work in progress; this represents services provided but which are not yet complete or billed.

Glossary - Customer service costs

Term	Definition
Abandonment Rates	The abandonment rate is the percentage of customers who have ended a contact before an agent answered it.
Absence	Absence is the proportion of staff who, at any one point, are not in the contact centre when they are supposed to be. This does not cover approved leave but includes illness, truancy etc.
Admin	General administration and keyboard- or paper-driven work which may be for internal purposes only (e.g. timesheets) or for external work as well (e.g. sending faxes).
AHT	Average Handling Time (AHT) is a measurement of the total amount of time spent on a complete interaction. It includes everything from the first 'Hello' to the agent finishing after call wrap and getting ready for their next call.
Attrition	Attrition is the rate at which members of staff voluntarily leave the workforce over a given period of time. It is also known as 'staff turnover', or 'staff churn', although in the contact centre industry 'churn' tends to refer to the flow of customers rather than staff.
Average	Refers to the average value across selected group of comparable sectors (Banking & Capital Markets, Telcos and Technology, Insurance, Public Sector & Utilities).
B&CM	Banking, capital markets and investment companies
Customer Service	Refers to metrics such as abandonment rate, FCR and hold time, which, in improving, improves the customer experience but not the contact centre's efficiency.
Digital	The routing of transactions or interactions through IT based services.
Idle	time spent not taking calls or doing other work, usually waiting for the next call.
FCR	First Call Resolution (FCR) is the proportion of contacts that are resolved in the first instance, without a customer having to require further or follow-up.
Global	Refers to the average value for all sampled companies within the benchmark report.
Handle Times	Handle time is the time taken processing a contact by an agent.

Glossary - Customer service costs

Term	Definition
Other	Anything not covered by the previous activities, including lunch and breaks.
P.S.	Public sector
Productivity	Also referred to as occupancy, this is usually the non-idle time of an agent on a typical day.
Response Times	Response time is the time taken between the initial customer contact and its resolution.
Self-service	The ability of a company to process transactions using autonomous systems, such as settling a bill online.
Spans of control	The number of people a manager level is responsible for.
T&T	Telcos and technology
Talk time	Average Talk Time (ATT) is the amount of time an agent spends talking to customers.
Training	Desk-based or lecture-type training
Utilities / Wider Utilities	Gas, water, electricity companies
Wrap time	After-call data input and actions driven specifically by that call.

Appendix 3

Debt Management Methodology

We have undertaken a qualitative and quantitative review to compare, interpret and assess performance

Our assessment of domestic retail costs associated with bad debt in comparison to other sectors, has two components:

1. **Quantitative** assessment benchmarking debt management performance using publically available information; and
2. **Qualitative** assessment where we draw upon our experience and knowledge of debt management practices within each of the compared sectors.

We have benchmarked the water sector against energy, telcos and local authorities (council tax). Local authorities provide a comparison of captive-market organisations; energy of a common operating model; and telcos as another high volume environment that exhibits good practice in terms of billing and collections.

In order to develop a comprehensive view of performance across the sectors we have used the the following 6 metrics:

1. DSO (Days sales outstanding)
2. Doubtful debt
3. Bad debt charge
4. Unbilled debt
5. Void properties
6. Prepayments

Our analysis was limited to these metrics due to limitation with the availability of data.

In order to understand what influences lie behind the water sector's performance we have modelled data against key drivers such as:

- Level of deprivation across a company's main customer base
- Number of total household connections

Our qualitative assessment considered:

- The extent to which debt levels are due to factors that water companies can influence;
- Current water sector management practices, including variation across water companies, and how practice compares to other sectors;
- Consideration of how effective current management practices are in dealing with the causes of bad debt;
- What an efficient level of debt could be in the sector;
- What are the leading practices which would be relevant to water, and what more can water companies do to improve their practices; and
- Any updates to Ofwat's guidelines on dealing with customers in debt.

Based on our quantitative and qualitative findings we have provided considerations for a framework which could be used to assess company capability, and which is highly flexible across sectors.

In considering the potential for improving bad debt performance it is important to be aware of the impact on debt management costs. However, in our experience any increase in operational cost will be small compared to the reductions in bad debt costs that can be achieved. Wider consideration should be given to Ofwat's recommended assessment principles when evaluating bad debt management. Good process control and data validation at key points in the customer cycle can significantly mitigate the risk of incurring high levels of unrecoverable costs. Beyond this observation, we have made no assessment of how delivering improved bad debt performance is likely to impact debt management costs.

We have used data extrapolation techniques, where appropriate, to address the inconsistencies found in published data

We have focused our analysis on UK performance based on data from 2011/12 onwards, using the most up to date published information; predominantly Financial Statements and Annual Regulatory Performance Reports. For further details on the data which has been collected, please see the table provided on page 80.

Sample sizes vary depending on the number of organisations within the sector and data available across all industries. Not all organisations publish a comprehensive data set for all metrics, and therefore the sample on which calculations are based varies between metrics. The methodology used varies across each metric; we have described our methodology in each section of analysis.

Notes on water sector information

Changes in the regulatory reporting requirements, mean that water companies were no longer required to disclose the working capital table nor provide the same breakdown of household and non-household data for debtors from 2015/16. Some companies have declared some of this information anyway and we have used this where we were able to identify it. For incomplete data sets for 2015/16, we have extrapolated based on prior years data.

As the bad debt provision is not published in the Regulatory Accounts, we have used statutory accounts as the data source. Regulated income is by far the largest income stream within a statutory water entity and would typically represent the greatest risk of bad debt, we therefore would not expect there to be a huge variance between the bad debt provision for the statutory entity and the regulated component of that entity. Not all companies have published this information as it is not a mandatory requirement.

Notes on non-water sector information

Not every company provided the full range of data required by this review, for every year covered. For example, some companies outside of the water sector only published a Statement of Cash Flow in four of the five sampled years. Therefore, to produce a consistent projection for these missing years the following approach has been followed:

- Where missing data is for the start or end of the period, the nearest available year has been extrapolated forwards / backwards; and
- For missing data in the middle of two periods, an average of the nearest periods has been used to interpolate results.

Local authorities data only covers sufficient data for assessing DSO and bad debt charge.

There is a good set of data across sectors but some data points are not available for all

The table below illustrates which data has been collected on an industry basis for each period surveyed, and across the main five metrics used to compare industries. The main points to note regarding data availability are:

- All data is for the period 2011/12 to 2015/16 sourced from Statutory or Regulatory accounts except for 2016/17 Water data which was provided directly by Ofwat from Regulatory returns.
- The exception to this is for 2015/2016 in the Energy & telco sectors. As companies report at different times of the year, as at the time of the analysis, the annual reports for some companies were not available.
- The principle source of data used for local authorities is government reporting on in-year collection rates and associated debt write-offs. Local authority data is not available for doubtful debt provisions and customer prepayments as these are not published.
- There is no concept of unbilled debt for council tax as it is billed annually in advance. This metric is therefore not relevant for local authorities.
- Unbilled debt in water relates only to measured income.

Industry	DSO					Bad Debt Charge					Doubtful Debt					Unbilled Debt					Cust. Prepayments				
	12	13	14	15	16	12	13	14	15	16	12	13	14	15	16	12	13	14	15	16	12	13	14	15	16
Energy	✓	✓	✓	✓	P	✓	✓	✓	✓	P	✓	✓	✓	✓	P	✓	✓	✓	✓	P	✓	✓	✓	✓	P
Local Authorities	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X	X	NA	NA	NA	NA	NA	X	X	X	X	X
Telco	✓	✓	✓	✓	P	✓	✓	✓	✓	P	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	P
Water	✓ ¹	✓ ¹	✓ ¹	✓	✓	✓ ¹	✓ ¹	✓ ¹	✓ ¹	✓ ¹	P	P	P	P	P	✓	✓	✓	✓	P	✓	✓	✓	✓	X

**Key: ✓ = Available (HH and non HH combined) X = Not Available NA = Not applicable ✓¹ = HH specific
P = Available for some companies compared to prior year**

Appendix 4

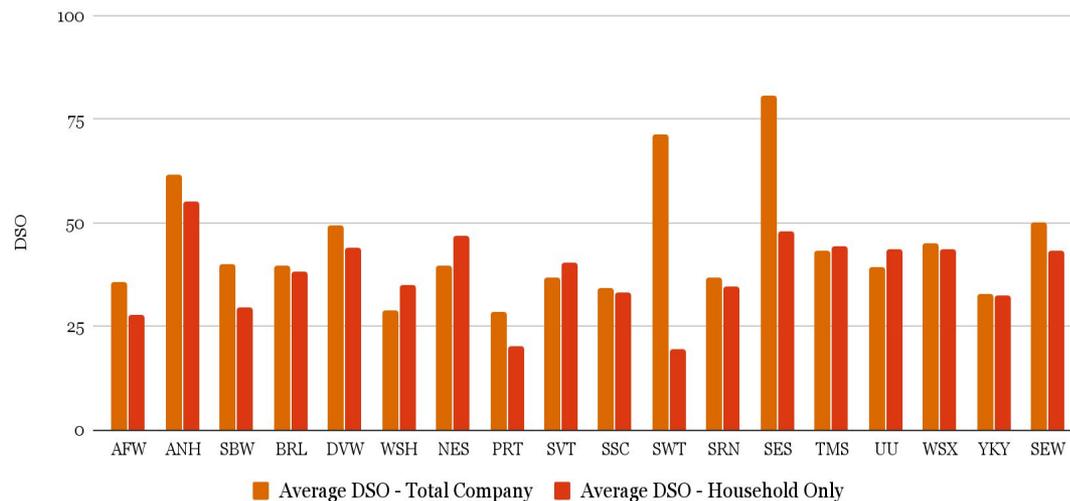
Household versus Total Company Performance for the Water Sector

For some measures, the differentiation between household and non-household has limited impact

We have focused our analysis on UK performance from 2011/12 onwards, using the most up to date published information; predominantly Financial Statements and Annual Regulatory Performance Reports. For further details on the data which has been collected, please see the table provided on page 80.

For the water sector, household specific data has been used wherever possible, in line with Ofwat's intention to focus on domestic bad debt performance. This level of data has not been used for the energy and telco sectors, which may result in an artificially improved performance of other sectors when compared to water; in our experience non-household portfolios typically have a better bad debt management performance than household channels.

To assess that our findings are consistent in using household specific values for water in comparison to combined household and non-household values for other sectors, an analysis has been performed to understand the differences that would be caused if total values were used for water i.e. combined HH and non-HH). From the analysis performed, as represented by the graph and table below, these differences would not have caused a material difference to the findings.



Metric	Data Used	Median
Days Sales Outstanding	Total	40
	Household only	39
Bad Debt Expense as % of Revenue	Total	2.3%
	Household only	3.2%

Appendix 5

Debt Management Practices by Customer Journey Section

Risk mitigation can be improved by validating data and leveraging AMR

Opportunity to improve ■
 Improvement possible but more difficult ■
 No improvement possible ■

Activity	Are there opportunities to use this more widely in the water sector	
Credit checking	Gathering data at customer take on and throughout the lifecycle of an an account enables not only the validation of customer data but also could form a major component of behavioural scoring (propensity to pay).	
Pre-payment	Whilst customers can't be disconnected if they do not pay, switching payment terms to pre-payment (either through assumed instalment plans or advance billing) would help companies identify issues of underpayment at an earlier stage.	
Controlled spend/credit limits	Not used for household customers as this could constitute disconnection if enforced. However, if combined with usage alerts could enable earlier interventions such as proactive contact to manage bill shock and alert customers of high useage.	
Usage alerts	At billing, unexpectedly high bills are investigated before being issued. As AMR is rolled out the ability of water companies to monitor usage and detect possible leaks or unusually high consumption becomes a realistic consideration. This would enable the water company to manage bill shock better and address leakage sooner, reducing the level of associated debt as well as the level of Leak allowance offered.	
Security deposits	Not used for household customer as this would constitute disconnection if they were enforced.	
Stopping supply	Not legally permissible to stop supply. However where a void property has been disconnected as a leak prevention measure (for example) or a new property requires connection, the water company can demand evidence that the requester is either an owner or occupier of the property before reconnecting the supply.	

Affordability is an area where several opportunities for improvement are available

Opportunity to improve 
 Improvement possible but difficult 
 No improvement possible 

Activity	Are there opportunities to use this more widely in the water sector	
Low income tariffs	Widespread use of tariffs. There is a need to negotiate better cross subsidies, and adopt self funded tariffs to help more customers. Engagement and retention strategies need to become more proactive.	
Water Direct direct payments	Widespread use although improved data quality, better working relationships with DWP and dynamic strategies to deal with constantly changing customer circumstances are required to maximise benefits.	
Bursary schemes to help clear arrears	Limited use of charitable trusts. This seems to be phasing out with companies preferring arrears matching schemes.	NA
Arrears matching schemes	Widely used although qualification criteria and extent of match vary widely. Some schemes need improvement to ensure they drive the right behaviours and successfully rehabilitate customers.	
Continuous authority	Widely used in Financial Services but seldom seen in water; attracted some bad press in the past but may be better for customers on a low income as penalties for missed payment are far less than for a failed DD. Customer retains the ability to cancel arrangements if they find it's not working for them.	
Proactively identify vulnerability/affordability	Companies need to be more proactive to catch customers before customer arrears grow to unsustainable levels that they may struggle to clear. Improving data quality will be a key enabler here.	
Field engagement campaigns	Greater use of field agents for customer engagement rather than collection campaigns could be used by more companies as part of a tailored collection strategy. These have proved effective for some at engaging customers who might otherwise avoid debt collection contact.	
Engage with third parties such as Money Advice Service and CAB	This is becoming more widespread but DPA and data quality considerations present challenges with engagement. However, these are not unsurmountable. Greater investment of time and resources in this area is likely to realise greater benefits.	

Routine Collections in the water sector could be improved across all key activities

Opportunity to improve 
 Improvement possible but difficult 
 No improvement possible 

Activity	Are there opportunities to use this more widely in the water sector	
Tailored collections	Behavioural segmentation and collection strategies tailored to different customer segments creates a more effective and and lower cost collection process. Incorporating behavioural economics into customer communications has been shown to make a tangible impact.	
Outbound dialler	Most use an outbound dialler although aligning to tailored collection strategies would improve efficiency and effectiveness of the dialler by improving right party contact and successful outcomes.	
SMS and digital contact	Generally used as an SMS blast campaign and limited use of ad hoc emails. Could deliver greater benefits if integrated to tailored collections routines and incorporating pull payments where a customer is directed to a payment portal via a link. Improved quality of data is a key enabler.	
Voice Blast	Used by a few water companies but has yet to be adopted widely. Given the drive to reduce cost to serve, this has merit within a tailored, omni-channel dunning strategy.	
Out of hours dialling	Some companies have yet to embrace out of hours calling to the maximum extent. Evening and Saturday mornings are the best times to make contact with a working population.	
Speech analytics	This is a new technology that is now being offered by some service providers but is not thought to be widely used in the water sector.	
Data sharing	The use of data sharing with CRAs is increasing but some companies have been reluctant to adopt this due to concerns with the impact on customer experience. However, in water it is important to recognise that every possible resource should be exploited to encourage prompt payment and penalise late payment. Data share provides both a reward for prompt payment and a consequence for late payment.	

Late stage recovery is partially limited in the water sector by disconnection rules

Opportunity to improve 
 Improvement possible but difficult 
 No improvement possible 

Activity	Are there opportunities to use this more widely in the water sector	
Disconnection	Not legally permissible.	
Litigation and default	Litigation is widely used but in many cases this has been pared back significantly due to concerns with the negative impact threats of legal action might have on SIM score. And for similar reasons, some water companies have been slow to adopt data sharing arrangements with CRAs including the registration of defaults.	
DCA	DCAs are widely used but recovery rates are generally fairly poor. By adopting a tailored approach to collections the use of DCA's is likely to change with lower value debts and/or lower propensity customers being targeted in this way. As a result the commercial relationships may need to be reviewed to encourage maximum customer engagement and cash collections.	
Debt sale	Very limited use. Use of debt sale for former debts that have moved out of area may help to limit costs and free up resources.	
Trace & collect	Generally well used by some but could be used more consistently across the sector.	
Enforcement	Historically enforcement has been limited due to the low volumes of legal action but also a fear of incurring unrecoverable costs. Better customer profiling and pre-legal debt assessment can mitigate the risk of incurring unrecoverable costs as part of a tailored collection approach.	
Field collections	Historically this was seen as a late stage collection process, often performed by a DCA but has been limited by costs. Some are now using internal and external agencies to visit earlier in the collection cycle as part of a tailored collection approach with a view to securing engagement.	

Data quality and validation is an area for significant improvement

Opportunity to improve 
 Improvement possible but difficult 
 No improvement possible 

Activity	Are there opportunities to use this more widely in the water sector	
Validate with external sources	Customer data is generally poor because of limited data validation throughout the process. More validation of data is required at customer take on. In addition, using external data (e.g. from CRAs) for customer segmentation and debt assessment purposes could significantly help to improve data quality. We also see opportunities to invest more time at customer move in and move out (MIMO) to capture more information about the current and former/future occupiers to aid data validation.	
Control over new customer set-up	Water companies are currently not able to identify change of occupancy unless someone contacts them. This is because Domestic properties are always connected to the water supply. However active data validation helps to identify change of occupancy even if retrospectively. Also some CRAs have developed innovative solutions that track individual consumers through their credit records.	
Proof of ID	Proof of ID is not required as a failure to provide an ID would constitute disconnection if enforced. However requesting ID is permitted and would improve data collection. In the event of a reconnection or new connection the water company is entitled to demand proof of ownership or occupancy before reconnecting a supply.	
Manage former accounts	There is limited internal tracing of former debts driven by poor quality data and a lack of resource. However some are now seeing the value of searching the records of current customers looking for a match with details of a former debtor before sending out to external trace and collect.	
Void management	The treatment of void properties varies widely. Some companies prefer to bill a void property on the basis that they have a chance of collecting some cash. Therefore any suggestion of occupancy would generate a bill. Others are concerned about the impact on the bad debt charge and are therefore wary of only billing a void if they feel they have a reasonable chance of collecting the debt. In the interest of good commercial practice we believe that all consumption should be billed and that the water companies should invest in optimising data accuracy and tailored billing and collection approaches to ensure such customers are charged appropriately and payment enforced robustly where appropriate.	

Appendix 6

Debt Management metric Definitions

We have outlined a set of metrics that allows objective assessment of household billing & collections

Example measures that would provide an holistic view of debt management performance

Primary	Cash conversion rate					
	Prepayments	DSO	Doubtful debt	Bad debt charge	Voids %	Unbilled debt
Secondary	% of customer base that has been validated in the last 12 months					Avg. billing delay due to billing cycles
	Former debt as a % of total debt book				Days of billing due to billing exception	
	Doubtful debt as a % of gross debt book					
	In-year collection rate (%) overall and split between measured and unmeasured					
	% of customer on DD, Standing Order or Continuous Authority				Write off v revenue %	
	% of customers on a formal Instalment arrangement					
	% of instalments/bills paid within 30 days of instalment/bill date				% of wo by reason	
	% of instalments/bills paid within 60 days of instalment/bill date					
	% of debt reaching late stage recovery					
	% of customer base on cross subsidies affordability tariff					
	% of customers on a self funded affordability tariff					
	% of customer base on Water Direct					
	% of customers on debt matching scheme					
	% of customers receiving support with affordability					
	% of customers on a debt repayment plan					
	% of low value repayment plans					
	% of missed instalments against a debt repayment plan					
Average age of debt reaching late stage recovery						
% of debt placed in each recovery path						
% of debt recovered after 6 and 12 months by recovery path						

These household metrics cover a breadth of debt management levers, allowing an objective assessment of performance and thus the efficiency of management in this area. This information would not typically be shared publically in other sectors due to the competitive nature of this information.

The primary metrics are those which are key to understanding bad debt performance. Secondary metrics are potential indicators companies could look at to gain insights on how to be sector leading. See appendices for definitions.

Definitions for metrics used when considering bad debt management performance - primary metrics

Metric	Definition
Days Sales Outstanding	Trade receivables owed by domestic customers divided by revenues attributable to domestic customers multiplied by 365.
Customer Prepayment Days	The value of customer prepayments provided by domestic customers divided by revenues attributable to domestic customers multiplied by 365.
Doubtful Debt as a % of Net Debtors	The value of the doubtful debt provision relating to household customers divided by the value of trade receivables attributable to household customers.
Bad Debt Charge as a % of Revenue	Bad debt expense related to household customers divided by revenue attributable to household customers.
Voids as a % of Connected Households	The number of void households divided by the number of total connected households.
Unbilled Debtor Days	The value of unbilled revenue attributable to domestic customers divided by total revenue attributable to customers multiplied by 365.
Cash Collection Rate	Operating cash flow divided by operating profit multiplied by 365.

Definitions for metrics used when considering bad debt management performance - secondary metrics

Metric	Definition
% of customer base validated in last 12 months	Number of customers who have provided confirmed ID divided by total number of customers
Former debt as a % of debt book	Value of outstanding trade receivables attributable to domestic customers outstanding for one year or more divided by the total value of trade receivables attributable to domestic customers.
Doubtful debt provision as a % of gross debtors	Doubtful debt provision attributable to domestic customers divided by total gross trade receivables attributable to domestic customers.
In-year collection rate	The value of in-year customer receipts divided by total in-year revenue due from customers.
% of customers on direct debit, standing order or continuous authority	Number of domestic customers on direct debit, standing order or continuous authority divided by total number of domestic customers.
% of customers on a formal instalment plan	Number of domestic customers on a formal instalment plan divided by total number of domestic customers.
% of instalments/bills paid within 30 days of instalment bill date	Number of domestic instalments/bills paid within 30 days of the bill date, divided by the total number of domestic customers.
% of instalments/bills paid within 30 days of instalment bill date	Number of domestic instalments/bills paid within 60 days of the bill date, divided by the total number of domestic customers.

Definitions for metrics used when considering bad debt management performance - secondary metrics

Metric	Definition
Debt written off as a % of revenue	Value of household trade receivables written off in-year divided by total revenue attributable to household customers.
Debt written off by reason	Value of household trade receivables written off in-year for each reason provided, shown as a percentage of the total household trade receivables written-off in-year.
% of debt reaching late stage recovery	Value of household trade receivables reaching late stage recovery divided by total value of household trade receivables.
% of customer base on cross subsidies affordability tariff	Value of household customers on a cross subsidies affordability tariff divided by the total value of household customers.
% of customers on a self-funded affordability tariff	Number of household customers on a self-funded affordability tariff divided by the total number of household customers.
% of customers on Water Direct	Number of household customers on Water Direct divided by the total number of household customers.
% of customers on debt matching scheme	Number of household customers on a debt matching scheme divided by the total number of household customers.
% of customers receiving support with affordability	Number of household customers receiving support with affordability divided by the total number of household customers.

Definitions for metrics used when considering bad debt management performance - secondary metrics

Metric	Definition
% of customers on a debt repayment plan	Number of household customers on a debt repayment plan divided by the total number of household customers.
% of customers on a low value repayment plan	Number of household customers on a low value repayment plan divided by the total number of household customers.
% of missed instalments against a debt recovery plan	Value of household related, in-year missed instalments divided by the total value of instalments associated with debt recovery plans.
Average age of debt reaching late stage recovery	The median age of household trade receivables as weighted by value of trade receivable owed.
% of debt placed in each recovery path	Value of household related trade receivables associated with each recovery path, divided by the total value of household related trade receivables.
% of debt recovered after 6 months and 12 months by recovery path	Value of household related trade receivables recovered after 6 months / 12 months in a given recovery path divided by the total value of household trade receivables associated with that recovery path.
Average billing delay due to billing cycles	Median number of days difference between service being provided and the date on which a bill is raised.
Days of billing delay due to billing exception	Median number of days difference between a bill being initially raised and the date on which a bill is finally issued post-amendments.

Appendix 7

Customer Services Data Sources

Benchmark Report Sources - Customer service costs

Reference	Company	Report	Sample	Date sampled
CB	Contact Babel	<i>The UK Contact Centre HR & Operational Benchmarking Report</i>	216 U.K. Contact Centres	June-August 2016
		<i>The UK Contact Centre Decision-Maker's Guide 2016</i>	216 U.K. Contact Centres	June-August 2016
DD	Dimension Data	<i>2017 Global Customer Experience Benchmarking Report</i>	1,351 Global Contact Centres	2017

This report has been prepared for and only for Ofwat in accordance with the terms of our Service Order dated 27 June 2017 and for no other purpose. We do not accept or assume any liability or duty of care for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

In the event that, pursuant to a request which Ofwat has received under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004 (as the same may be amended or re-enacted from time to time) or any subordinate legislation made thereunder (collectively, the "Legislation"), Ofwat is required to disclose any information contained in this report, it will notify PwC UK promptly and will consult with PwC UK prior to disclosing such report. Ofwat agrees to pay due regard to any representations which PwC UK may make in connection with such disclosure and to apply any relevant exemptions which may exist under the Legislation to such report. If, following consultation with PwC UK, Ofwat discloses this report or any part thereof, it shall ensure that any disclaimer which PwC UK has included or may subsequently wish to include in the information is reproduced in full in any copies disclosed.

© 2017 PricewaterhouseCoopers LLP. All rights reserved. In this document, "PwC" refers to the UK member firm, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.