

INTEGRATING ESG AND CREDIT ANALYSIS FOR UK WATER UTILITIES

SIGNATORY TYPE	Investment Manager
OPERATING REGION	UK
ASSETS UNDER MANAGEMENT (AUM)	£118.9 billion*
FIXED INCOME AUM	£56.1 billion*
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ASSESSING ESG RISKS IN THE WATER SECTOR

In 2015, we conducted a review of English water companies' resilience to climate change, and the impact of this on investment decisions. Our key findings, published in a [PRI case study](#), were that firms have devoted impressive resources to building resilience against climate change, with varying quality between companies. We concluded that assessing climate change risks should be used alongside existing measures in investment decisions.

Whilst the water industry is highly regulated in the UK, opportunities to differentiate between firms and across capital structures do exist. We have sought to provide

more comprehensive ESG analysis of the water sector, looking at measures beyond climate resilience. We used the Sustainability Accounting Standards Board's Materiality Map for guidance, supplementing it with metrics that are more material in the UK market. We looked at energy management, access and affordability, water scarcity strategy, leakage, customer service and the environmental impacts of assets. Some of these issues were merged into one broader topic, with our findings discussed below. Where information on company websites was lacking, we contacted companies directly.

The PRI's Fixed Income Case Study series highlights examples of interesting and innovative approaches to responsible investment. Written by fixed income practitioners from around the world, the case studies cover topics such as ESG integration, negative and positive screening, thematic investment and engagement.

Sharing these examples will enable investors to collectively build a concept of emerging good practice. The PRI aims to publish these on an ongoing basis. If you would like to learn more or contribute your own case study, please [contact us](#).

* As of 30 September 2018

ENERGY MANAGEMENT

We looked for energy recovery processes, the kind of energy being used and the amount of sludge (treated residual sewage that is transformed into valuable outputs on site). With the correct modifications, a wastewater treatment plant can become electrically self-sufficient, with any excess sold back into the grid. However, this carries a carbon emission, suggesting that there may be a trade-off between environmental and financial performance.

A like-for-like comparison of companies was not possible, since some companies are waste and water, and some are water only. Among water and waste companies, the majority use 100 percent of sludge to produce energy or fertiliser. Bioresources is an area that has been under review with the Water Services Regulation Authority (Ofwat), which is trying to push water companies to think of these outputs as opportunities instead of waste. Companies that find alternative uses for waste to produce energy will be at an advantage.

As an example, the Esholt turbine operated by Yorkshire Water was the first in the UK to generate power from incoming sewage. The turbine is set after the screening and grit removal stage and before the primary settlement tanks, and sees a flow of more than 2,600 litres per second. The turbine is powered continuously by the sewage flowing through it. Today, the site is almost self-sufficient in terms of energy.

WATER SCARCITY

It is estimated that roughly one-third of water that is removed from the natural environment is wasted through leakage, in the home and via treatment losses. Currently, around 40 percent of customers across England have a water meter. Fitting a water meter reduces usage by 10-15 percent, suggesting that installing meters across the country could save half a billion litres of water per day. We found a wide variance in metered customer numbers – 92 percent in the best case, and 43 percent in the worst case.

ACCESS AND AFFORDABILITY

We looked at bad debts to assess the extent to which water companies were successfully working with customers on paying bills. Our initial assumption was that a lower number would indicate a more affordable service; however, it became clear that this isn't an effective proxy, since bad debts are as often attributed to "won't pay" as they are to "can't pay." Many customers can't afford to pay, but this

doesn't explain the level of bad debt across the industry – estimated by Ofwat to cost each customer £21. Going forward, companies with higher levels of bad debt will be required to bear the costs themselves. Again, we found the variance to be high – 5.7 percent in the worst case and 0.9 percent in the best case. The prevalence of "won't pay" is a potential indicator that regulation might grant excessive protection to the consumer, thereby increasing the cost to bill payers.

LEAKAGE

Leakage can be misunderstood without regional context. We found that most companies slightly exceeded their targets. In reality, leakage targets are set using the "sustainable economic level of leakage" - Ofwat requires water companies to fix leaks, as long as the cost of fixing the leak is less than the cost of not fixing the leak. Water companies maintain that leakage has been at economic levels since roughly 2000. Internal costs would include cost of repairs, disruptions to surrounding businesses and costs for rerouting traffic. The cost of not fixing a leak includes environmental damage, as well as the cost of developing new water resources to compensate for the water lost. Clearly, the cost associated with repairing leaks in dense urban areas will far outweigh those in more rural areas.

However, we question whether water is being appropriately priced, and if it is deemed economical to lose three billion litres per day. Increasing and internalising the cost of leaked water might incentivise companies to reduce leakage rates. Companies are increasingly using technology to detect and fix leaks economically, suggesting that they should be able to reduce their level of leakage.

ENVIRONMENTAL PERFORMANCE

The Environment Agency's Environmental Performance Assessment comprises seven measures of how well a company protects the environment. Measures include incidents of unexpected contaminants released, whether companies meet their environmental permit conditions and whether sludge is disposed of safely. This served as a proxy for waste and wastewater management. Performance was generally satisfactory, with the lowest score being 2 out of 4, and the highest 4 out of 4. While most fines in this area are not significant enough to impact credit quality at the senior level, poor performance will contribute to a narrative that water companies are performing poorly, and that the wider industry requires reform.

CUSTOMER SERVICE COMPLAINTS

We used the proxy of customer complaints to determine which companies were providing better overall customer service and were therefore less likely to face customer, public and political criticism. Whilst complaint levels will feed into penalties (or rewards) for water companies, we do not think this issue has a material impact on credit quality for senior lenders, but could influence concerns about the long-term sustainability of the industry.

CORPORATE GOVERNANCE

Corporate governance is an important factor that we routinely consider. Within a credit context, we tailor our analysis of corporate governance to ensure it's relevant to the risk characteristics of the way in which we have lent. As bondholders, we often have little or no control or influence over corporate governance, and directors have no direct accountability to bondholders. The way we often lend to companies through senior, secured bonds means that the direct financial impact of poor governance is dampened by our first claim on physical assets and the pre-emptive control provided by effective bond covenants. However, it is still an important factor to consider when looking at water companies as a whole. Water companies have come under significant public scrutiny in recent months. Often, issues like poor customer service and environmental performance, which can lead to fines and litigation, can indicate weak corporate governance or complex corporate structures with poor lines of accountability.

BONDHOLDER ENGAGEMENT

One key governance issue for the water sector is complex corporate structures. We recently met with management of some of our water companies and highlighted how corporate structures can be simplified whilst retaining the protections and controls for bondholders.

Following these meetings and ongoing public pressure, several companies sought to move their financing entities from the Cayman Islands to the UK. Due to the significant lender protections within these bonds, bondholder consent was required. Given the complex nature of the process, companies offered a work fee to cover the significant investor focus required. Following a review, we believed the proposals would not impact the credit quality of the companies, but would remove a key source of public scepticism. As such, we voted in favour of the substitutions. The financing entities are now in the process of moving to the UK. This development highlighted that bondholder engagement can be effective, leading to improvements in companies' corporate governance.

	ENERGY USAGE	METERING	ACCESS & AFFORDABILITY	LEAKAGE	BIODIVERSITY & ENVIRONMENT	CUSTOMER COMPLAINTS	ESG RANKING
Company A	Good	Good	Good	Good	Poor	Good	6
Company B	Good	Good	Good	Average	Good	Good	6
Company C	Good	Average	Poor	Good	Good	Good	5
Company D	Poor	Good	Poor	Good	Good	Average	5
Company E	Poor	Good	Good	Good	Poor	Poor	5
Company F	Good	Poor	Poor	Good	Good	Average	4
Company G	Good	Poor	Good	Average	Good	Average	4
Company H	Poor	Good	Poor	Average	Good	Poor	4
Company I	Good	Poor	Poor	Good	Poor	Good	3
Company J	Good	Poor	Poor	Average	Good	Poor	3
Company K	Poor	Average	Poor	Average	Good	Average	3
Company L	Good	Poor	Good	Poor	Poor	Poor	2

INVESTMENT IMPLICATIONS

Our analysis found significant variation between firms for each measure; however, the underpinning of the regulatory framework dampens the impact of some measures from a lender's perspective. As a result, we have weighted our results to those factors with a greater potential credit impact. The ESG indicator that we deem to have the most direct link to financial performance is leakage (given the operational incentives of the regulatory framework), with subordinated parts of the bond capital structure more sensitive to this measure. This measure, coupled with the percentage of customers that are metered, is crucial for long-term climate resilience.

The other measures received lower weightings. While the impact on revenue might be more tenuous, poor performance across the measures creates the perception that customers and the environment are intentionally being exploited, which can have wider consequences for the sector. Below are the results of our analysis.

Being a highly regulated industry in the UK, water companies are often considered homogenous from a credit perspective. But whilst the regulatory framework provides significant comfort to lenders, there are opportunities to differentiate between credits. Our finding is that sound ESG management leads to less volatile and marginally higher profitability, stronger long-term climate resilience and greater social performance. Changes to the regulatory framework in

2019 will make these factors more relevant, as a higher proportion of company revenue will come from operational performance incentives. In addition, poor ESG performance can weaken a water company's social licence to operate and contribute to the public perception that companies are not well managed. We take this analysis and incorporate it into our investment decisions to provide our clients with an appropriate rate of return.

Complex ownership structures and avoidance of tax can enhance the perception that the UK water industry in its current form does not deliver. Nationalisation, or a fundamental weakening of the existing framework, could create uncertainty for bondholders. It is therefore in our interests to ensure companies are addressing these issues.

CONCLUSION

Through targeted ESG analysis, we have been able to understand the impact of water companies' operational processes, energy usage and water scarcity strategy on company profitability and climate resilience. By integrating our ESG and credit analysis, we are able to use this information to better differentiate between credits and future-proof our clients' portfolios without compromising returns. Given the growing importance of ESG issues to the long-term viability of the current regulatory framework, we will continue to engage with companies on improving their ESG performance.