

**Indepen Forum on Capital Maintenance**  
25th May 2017

**Why regulation has to change**  
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# Why regulation has to change

## Introduction

The regulatory framework for the water industry has delivered well for customers, Government, investors and society. Regulated companies have reduced their costs, improved water quality and their environmental compliance and increased their levels of service to customers. But we cannot rest on our laurels. In Scotland, we want to change, quite fundamentally, the way the regulatory framework operates. If it is working so well, why on earth would we want to do this? Let me explain where I am coming from...

Few of us would disagree that the water industry should plan for extended time horizons. Water mains and sewers can be expected to last upwards of a hundred years. Treatment assets can typically be expected to last, at least, a few decades. We now need a regulatory framework consistent with meeting the challenge of managing these assets effectively for the lowest whole life cost. The days of the relatively easy wins are over.

In my view, the regulator and the regulated company need to step back. Our understanding of the average actual asset lives of tried and tested approaches (cast iron mains, concrete tanks and the like) could be improved. It appears to be worryingly incomplete. Many very old assets seem to perform well. But I, for one, am acutely conscious that we have seen only a relatively limited number of assets that cannot be 'patched up' and need to be completely replaced. We know even less about how long new technologies or approaches will be fit for purpose.

Incentive based regulation works on the basis that maintaining a hard budget constraint will encourage the regulated entity to become more efficient. And it bears repeating that this framework has worked well. But is it fit for purpose for today's capital expenditure challenge? The short answer, I think, has to be 'no'.

The creation of the RCV was, of its time, a stroke of genius. It addressed the potential time inconsistency problem and allowed for investment to improve water quality and our environment. To be fully effective, it requires a quite detailed understanding of asset lives and depreciation. And, in particular, a matching of the costs of maintaining assets and the depreciation profile used. These are difficult and complicated issues. Perhaps understandably, we have tended to rely heavily on a more simple metric: observed performance and the reported costs of interventions.

As an aside, it is interesting to question the extent to which the regulator could ever know, with confidence, that an allowance for capital maintenance, once made, was spent on capital maintenance. This is not, in any way, to impugn integrity – it is simply that most asset improvement projects that I have seen, or extensions to a water or sewerage network, have, at least on the margin, involved some expenditure on capital maintenance as well as enhancement or growth expenditures. How confident can a regulated company be in making such allocations? Is it therefore surprising that the regulator should have defaulted to an 'allow the minimum that is demonstrably required' approach?

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So what? The hard budget constraint and lack of asset information has pushed us towards a short-term approach to maintenance. How much does a company need to spend in the next regulatory control period?

We really ought to want to get a good handle on asset condition and asset life profile. If we do not, we are relying on, at best, estimates – and estimates based on very incomplete information.

I, for one, am not particularly comfortable in assuming that the short-term performance of assets and the interventions to address issues arising are 100% correlated with the interventions that are required to optimally maintain the condition of assets and their risks of failure over the longer term. But this is what we are currently doing.

In my view the Scottish industry should revisit the debate crystallised in Ofwat's MD161 letter. MD161 made it clear that a regulated company needed to focus on improving the information that underpinned its capital maintenance requirements. We need to know that our funding of the industry and the asset management activities of the regulated company are consistent with a sustainable industry and with inter-generational equity. For example, to what extent are industry appraisals thinking about what will be best for customers over the long run?

The Scottish industry (and I mean the whole industry) needs to work together collaboratively to establish a plan that will significantly improve understanding of asset lives, condition and risks. Christopher Hodges' principles of Ethical Based Regulation represent a sound way forward: the approach should be collaborative, transparent and enduring. The sanction for not engaging in the process diligently and transparently should, however, be significant.

What does this mean in practice? It means that I, as regulator, do not criticise Scottish Water for what I may perceive as past failures or a shortfall in understanding. It means that Scottish Water should publish a plan to improve its understanding of its assets and commit to using the results of this work in their investment decisions. The plan should be specific and have measurable outputs. Scottish Water would report on its progress and expect that customers may want to challenge whether sufficient progress is being made. To be effective all parties need to be honest about how they have felt about being regulated and at the response to regulation.

So, in the spirit of openness, let me explain why I worry about long term asset maintenance. I am proud of the achievements that the Scottish water industry has made and I do not want future generations of customers to think that they were let down by economic regulation and are being left to pay the costs of our not having faced up to some really difficult issues. Making progress on ensuring that the framework can deal with long term issues such as asset maintenance is now my single biggest priority. Perhaps it should have been a priority sooner – but all we can constructively do now is to look forward. This is why I said that the regulatory framework needs to change.

Our current lack of understanding of asset lives and the profile of deterioration has two obvious consequences.

Firstly, it is difficult to assess what the economic value that is delivered to a customer today is (even if we understand the cash costs that were incurred on their behalf). The economic value should include the share of the asset life that the customer is benefitting from. This raises an interesting question of inter-generational equity.

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Second, the conversation between a water company and its customers and its regulators must end up being less effective than it could otherwise be. For example, do we really know how an incremental investment in improving asset condition will reflect on levels of service or the life of the asset?

My concern boils down to the ugly practicalities of cash generation. If actual expenditure is lower than the depreciation allowance, unplanned short term free cashflow results and reduces the tight budget constraint. The natural regulatory incentive is to try to change incentives and allow for no more than is absolutely needed. But such an approach locks us into short termism when we need to be thinking long term and strategically. We actually need a better way to manage the free cash flow over the life of assets. And this is at the heart of the change to regulation that I believe is required.

I sometimes wonder whether the default to 'short-termism' is because the major actors (Governments, investors, regulators and managers) typically operate over a relatively short time horizon. Perhaps the focus is too much on "ensuring that a problem does not happen during my watch..."

So, it is now time for the Regulator and the regulated company to step forward and think about how service levels are best maintained efficiently and effectively over the very long term. Establishing the new regulatory framework will be a joint enterprise. The Quality regulators should be concerned if they do not see progress – water quality, customer service and environmental performance could be adversely affected; pollution incidents could become more frequent and severe. The owner, in our case the Scottish Government, should care: are they focused on the long term and on owning an organisation that cares about its current and future customer franchise? Or does the owner, perhaps, rely too much on the regulator to set appropriate charges and rates of return and not think sufficiently about the long term societal impact of the regulatory framework?

But most of all, customers should be concerned. Understandably, they want to be able to focus their time and energies on other aspects of their lives. They want to be able to take their water service for granted. When I ask friends and family, I hear one consistent response: "of course, regulators and regulated companies will ensure that assets and service levels are being appropriately maintained."

It is clear that we have a long way to go before we can provide this assurance. Take the wastewater network as an example, Scottish Water has conducted CCTV analysis of less than 20% of their critical sewers. There is, I think, a golden opportunity to work collaboratively to achieve a better outcome for customers!

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