

# COVID'S IMPACT ON THE WATER SECTOR

A collective effort to  
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# 2021

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## A COLLECTIVE EFFORT TO UNDERSTAND WHAT CHANGES THE PANDEMIC MAY BRING ABOUT

### DEVELOPING AN INDUSTRY-WIDE EVIDENCE BASE

[Ofwat](#) and Water UK commissioned Frontier Economics in May 2020 to assess the impact of COVID-19 on the 17 companies providing water and wastewater services in England and Wales. The objectives of the project, which had support from Atkins and input from the Behavioural Insights Team, were to:

- 1 Develop a set of forward-looking economic, social and behavioural scenarios that capture the potential breadth of changes that could arise from COVID-19.
- 2 Identify the impact of the changes to date on water companies, both positive and negative.
- 3 Extrapolate the impacts on water companies, using the scenarios developed in (1) as a framework, to test what challenges and opportunities may arise with regard to meeting the targets laid out in the most recent price review settlement (PR19).

Our analysis is based on data and qualitative information collected from the 17 incumbent providers in August 2020 covering the period April-July 2020. The data are necessarily preliminary, so our findings need to be interpreted with caution. They nevertheless represent an important first step towards furthering the collective understanding of the impact of the pandemic.

Recommendations of the next steps for Ofwat were outside the scope of our work.

### SKETCHING OUT THE PATH OF THE PANDEMIC, THE ECONOMY AND CUSTOMER BEHAVIOUR

We developed a set of pathways to capture the possible effects of COVID-19 on the water sector over AMP7, which runs from April 2020 to March 2025. We needed to keep the number of potential outcomes manageable, so we took the following as our starting point:

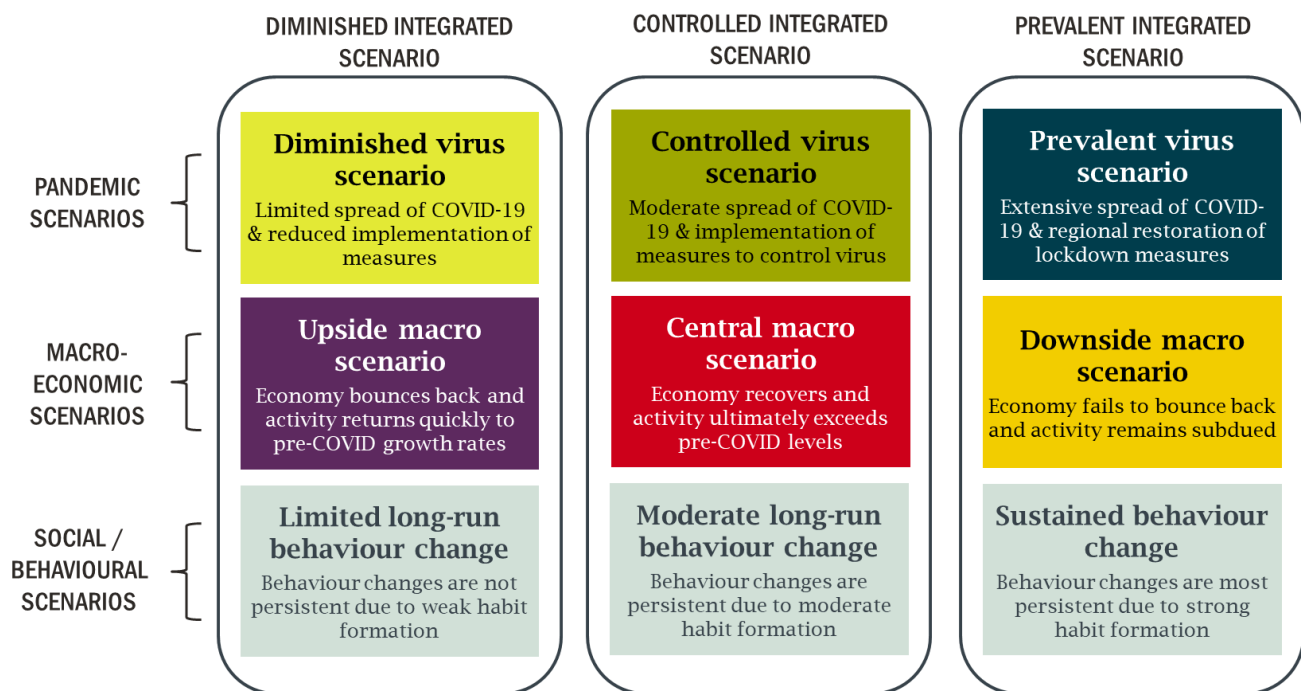
### EXEC SUMMARY

COVID-19 is likely to leave a lasting mark on everything from shopping routines to children's educational attainment. The water industry is no exception. The extent of the longer-term repercussions for the sector will depend in part on whether new habits such as working from home persist once the pandemic is over. However, our preliminary assessment is that the crisis could lead to an industry-wide reduction in the return on regulated equity over the current five-year asset management period (AMP7) of between 0.35% and 0.97%.

- **Three pandemic scenarios** that describe how the prevalence of COVID-19 and the associated social distancing restrictions may evolve;
- **Three macroeconomic scenarios** that are broadly aligned with the pandemic scenarios and set out how key variables such as Gross Domestic Product (GDP), unemployment and inflation may develop; and
- **Three behavioural/social scenarios** that are consistent with the pandemic and macroeconomic scenarios and describe how customer behaviour may change. Input from the Behavioural Insights Team formed the basis of a robust assessment.

These were then consolidated into three integrated scenarios to assess the consequences of COVID-19: Prevalent, Controlled and Diminished (Figure 1).

**FIGURE 1 SUMMARY OF ALL SCENARIOS**

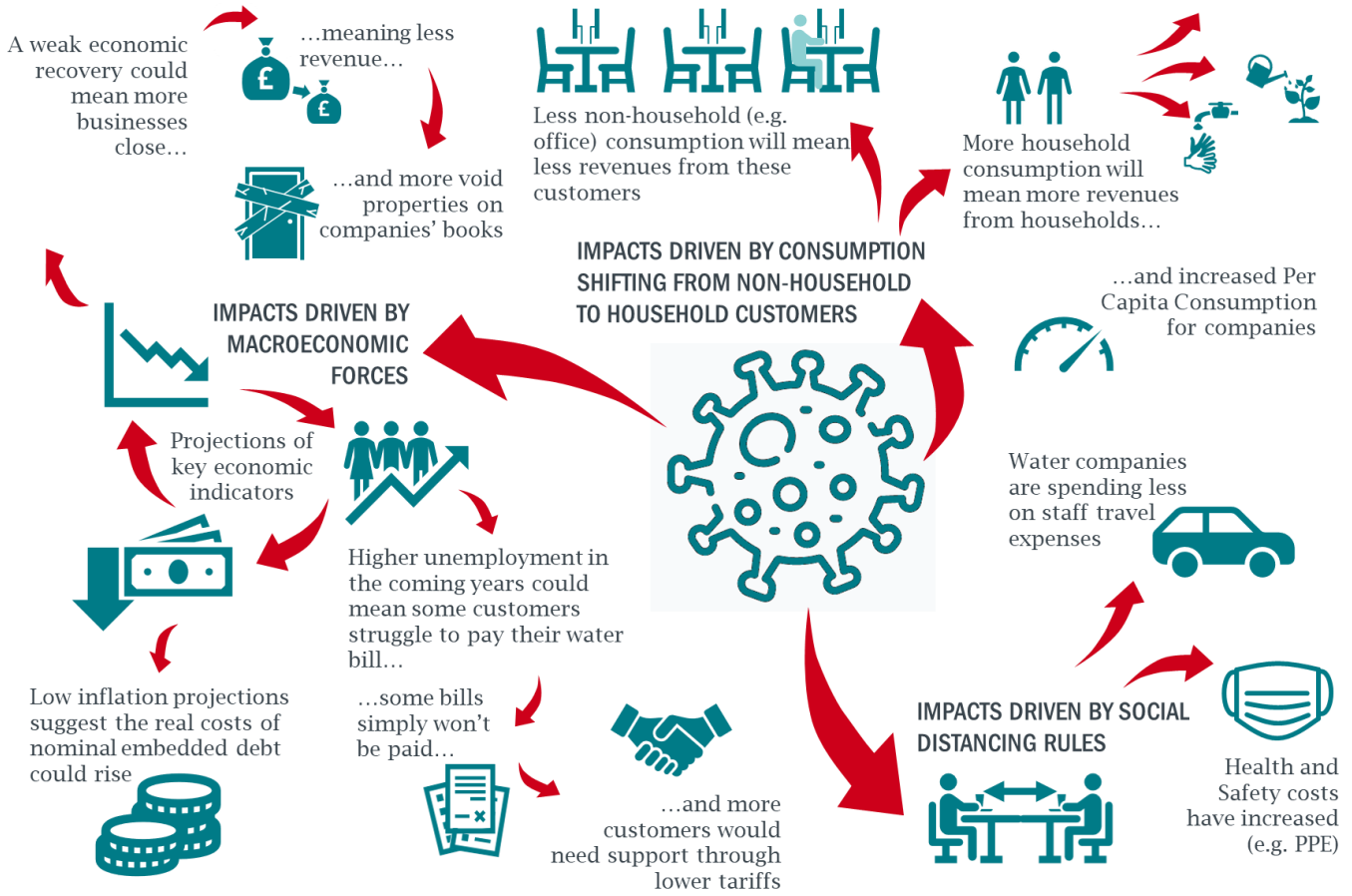


Source: Frontier Economics

## INDUSTRY-WIDE IMPACTS

We identified a number of material impacts across the water sector which we then projected over the course of AMP7 on the basis of the three scenarios described above. The effects were caused by a shift in consumption from non-household customers to households, social distancing rules and macroeconomic forces. They are summarised in Figure 2.

**FIGURE 2 IMPACTS OF COVID-19 ON THE WATER SECTOR**

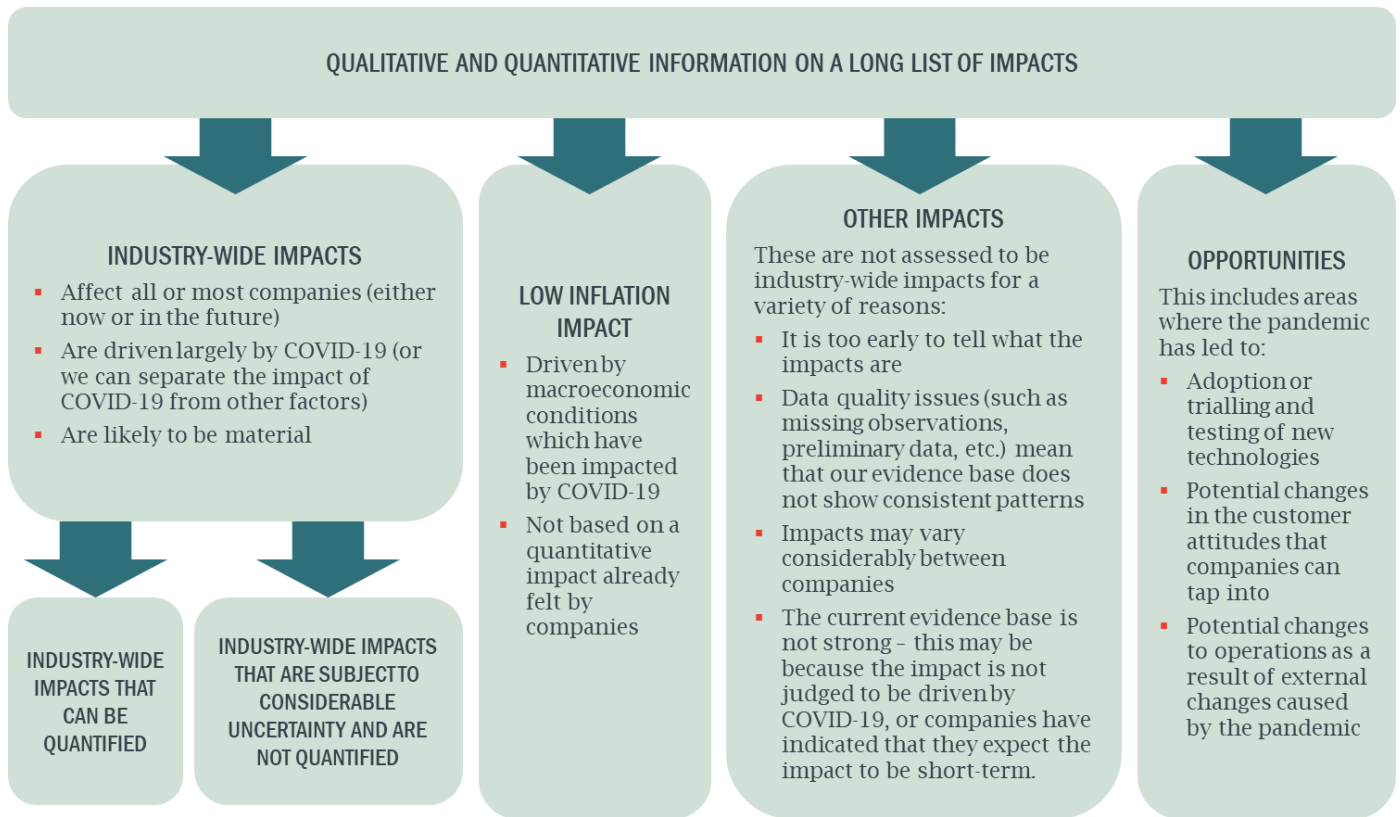


Source: For the COVID-19 icon: [www.flatiron.com](http://www.flatiron.com)

The pandemic may have other consequences for the water sector, but these are inevitably more uncertain. In any case, companies have time over the remainder of AMP7 to take mitigation measures, which is why we do not expect the effects to have a net impact over the five-year period. However, nothing is certain about the pandemic, so careful monitoring is called for in case the fallout becomes more serious.

Our groupings of the types of impacts are presented in Figure 3, including the opportunities afforded by some of them. These mainly relate to adopting and trialling new ways of working. Companies adapted technology in various ways so they could keep operating during lockdown. Tele-working in particular has been a big success, but it remains to be seen whether the new work habits endure or whether commuters flock back to their offices once the crisis is behind us. As a result, the long-run consequences for the water sector are unclear.

**FIGURE 3 OVERVIEW OF DIFFERENT CATEGORIES OF IMPACTS**



Source: Frontier Economics

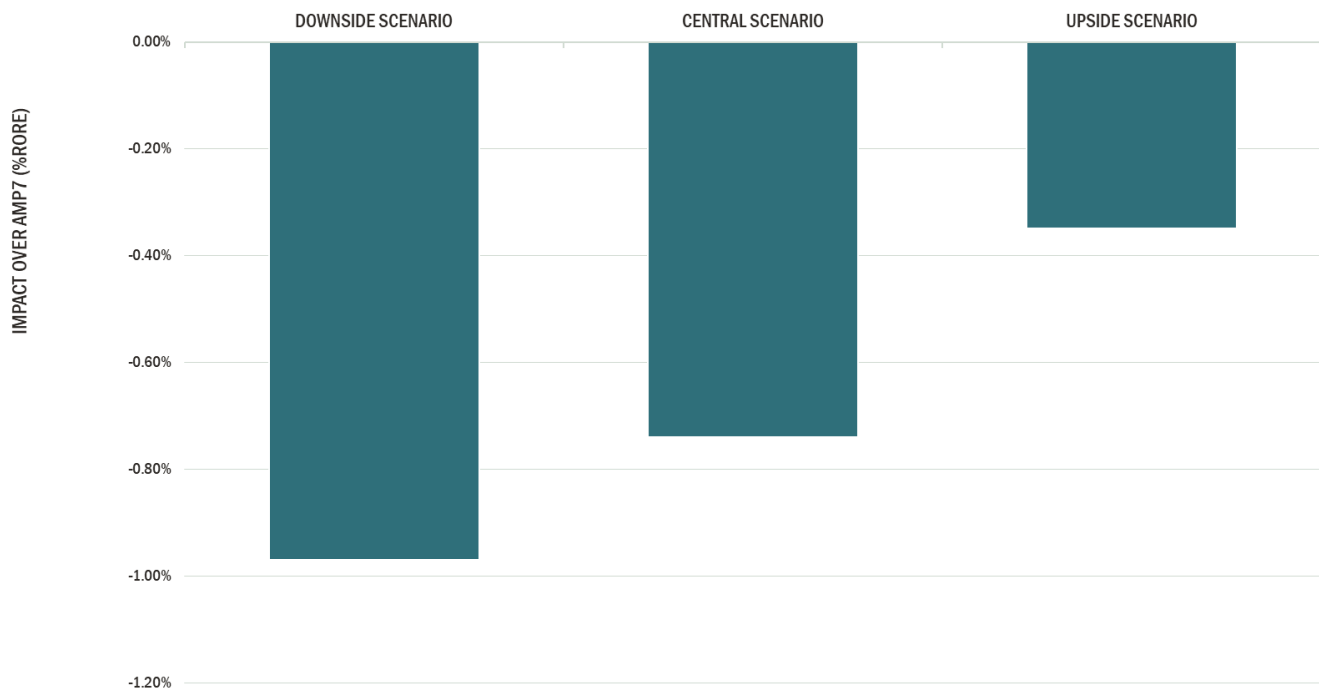
## INDUSTRY-WIDE IMPACTS RANGE FROM -0.35% TO -0.97% OF THE RETURN ON REGULATED EQUITY

Putting everything together, we project (Figure 4) an industry-wide reduction in the return on regulated equity (RoRE) over AMP7 of between 0.35% and 0.97% as a result of the effects of COVID-19. Note that this estimated range is based on notional gearing and takes account of reconciliation mechanisms. Our projection reflects the impacts that we are able to quantify on the sector as a whole, as set out in Figure 3 above. However, there are some important caveats:

- The effects we modelled depend on the path of the pandemic and the speed and strength of the economic recovery. We have not attached probabilities to each of the scenarios as too much uncertainty remains.
- The most significant impacts are from low inflation and bad debt, which are a function of our macroeconomic scenarios. While we drew on reputable sources for our assumptions, including the Office for Budgetary Responsibility, these are subject to change and can be affected by external factors. It is worth noting, for example, that inflation expectations have recently risen sharply in financial markets, partly in anticipation that a \$1.9trn stimulus package approved by the US Congress will give a big boost to US economic growth with spillovers worldwide.

- The amount of bad debt will depend in part on how effectively companies manage unpaid bills.
- These projections are based on data from April-July 2020 that have not been assured by companies.
- The estimates are presented as an average across the industry. The impact on specific companies will vary according to their circumstances, including local restrictions.

**FIGURE 4 PROJECTED SCALE OF IMPACTS UNDER THREE ILLUSTRATIVE SCENARIOS**



Source: Frontier Economics analysis

## SO WHAT NEXT?

Our analysis is the first step towards building an evidence base to gauge the consequences of COVID-19 for the UK water sector.

Gathering the data was an impressive feat given the pressures the pandemic was putting on companies to manage day-to-day operations. But they recognised the importance of the project and why their input was vital for its success.

In our view, the assignment served as a good example of effective collaboration between different parties in the sector. The project steering group included not only Ofwat and Water UK but also four water companies which provided continual input to our analysis and tested our assumptions and findings. The group had open, constructive discussions to better understand the available evidence.

Further work will need to be based on assured data covering a longer time period. It will also have to identify the potential longer-run impact of the pandemic on the supply and demand balance. This remains inherently uncertain and depends, like many aspects of everyday life, on the path the disease takes.

*This article appeared in the January 2021 edition of The Water Report.*

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## WANT TO KNOW MORE?

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