

Staying Afloat: To what extent is high leverage to blame for the water sector's financial resilience issues?

Excessive financial risk-taking through elevated levels of gearing is often cited as a regulatory failure in the water sector that has led to the near collapse of Thames and the categorisation of ten firms as 'Elevated Concern' or 'Action Required' for financial resilience by Ofwat. In this note we discuss:

- The extent to which the use of debt is likely to be efficient, e.g. by enabling access to deeper and wider pools of capital, despite increasing the risk of financial distress;
- The problem of externalities arising from the financial distress of a water company and how this may distort gearing levels above the optimum level, if not adequately addressed by the regulator;
- The importance of unpacking the relative contribution of the potential drivers of the current lack of financial resilience in the water sector, in particular the role of high leverage versus a miscalibration of PR19 by Ofwat; and
- Possible additional controls to further ensure the social costs of financial distress are internalised by companies when making gearing decisions (to the extent that a robust assessment of the drivers of the current financial resilience issues finds that further controls are justified on a cost-benefit basis).

Financial resilience in the water sector

Public bodies, commentators and broader stakeholders in the UK's provision of water services have claimed that the sector is failing. In a report by the Environment, Food and Rural Affairs Committee¹ ('Priorities for water sector reform', published on 16 June 2025), the finger of blame is pointed at (in part) '*serious economic mismanagement of companies, leading to unsustainable levels of debt and a high price for consumers. This situation must be resolved and a culture of relying on debt must never be allowed to arise again*'². It concludes that a '*new understanding is needed about how bill revenues and debt are used*'³ and recommends

¹ The Environment, Food and Rural Affairs Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for Environment, Food and Rural Affairs and its associated public bodies.

² Environment, Food and Rural Affairs Committee, 'Priorities for water sector reform' (16 June 2025), para. 25.

³ *Ibid.*

that 'new powers [to regulate the accumulation and management of debt in the water sector] should be tempered by a realistic and consistent understanding of what sustainable debt levels look like'⁴.

This note briefly discusses the extent to which debt can be a useful financial pillar in the capital structure of well-managed, regulated water companies in the UK, the impact of externalities that may arise from the financial distress of water companies on gearing decisions made by firms in the sector, whether and to what extent excessive financial risk-taking has contributed to low levels of financial resilience in the sector, and considerations for future policy to build financial resilience via regulatory change (if required).

Despite increasing the risk of financial distress, the use of debt is likely to be efficient, lowering bills for customers

A key determinant affecting the financial resilience of a water company is the level of debt it has issued (or 'gearing'/'leverage'). This is because debt subjects issuers to contractual financial obligations, which introduces or exacerbates the risk that an issuer will face financial distress. This raises the question: why would water companies, or any company, choose to issue debt?

The literature on the theory of the capital structure of a firm is vast. We briefly summarise key aspects of the trade-offs to issuing debt facing firms that are well understood.

Textbook corporate finance theory says that without taxes or the expected costs of financial distress associated with high gearing levels, the market value of a firm would be unaffected by its choice of capital structure (i.e. there would be no benefit or cost associated with different gearing levels).⁵ However, when these conditions are relaxed and more 'real-world' considerations are taken into account, then the capital structure of a firm does start to impact the cost of finance and therefore firm value. There is therefore likely to be an 'optimal' level of gearing that appropriately trades off the pros and cons associated with different levels of debt versus equity. Typically, the trade-off is presented between the following two considerations:

- **Tax shield on debt interest:** Firms typically pay taxes on the profits that they generate, which are calculated after the deduction of interest payments. Therefore, the issuance of debt generates an 'interest tax shield' that arises from lower tax payments, increasing a firm's market value, and lowering its cost of capital.
- **Costs of financial distress:** The issuance of debt increases the risk that an issuer will be unable to meet its contractual financial

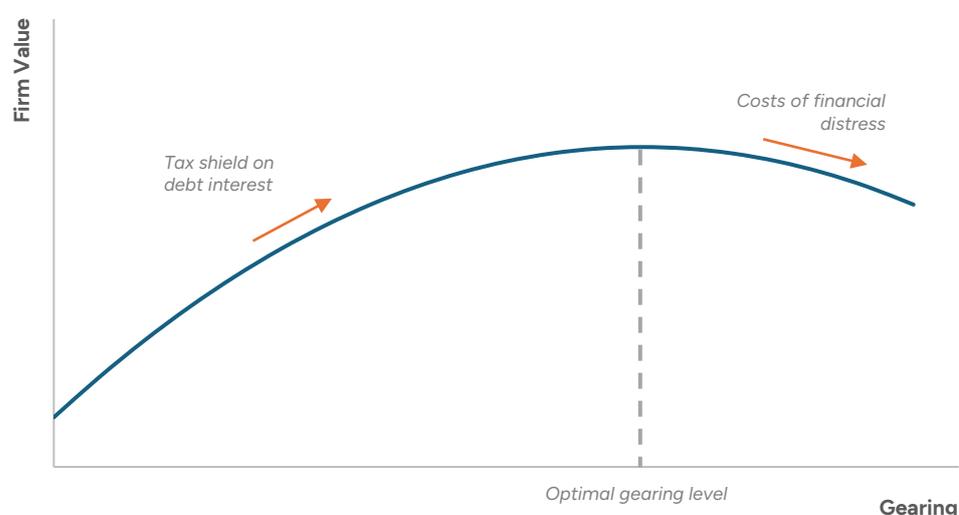
⁴ Environment, Food and Rural Affairs Committee, 'Priorities for water sector reform' (16 June 2025), para. 26.

⁵ Other assumptions that are often implicit in this statement are that the firm's securities are fairly priced and the securities themselves don't affect the cashflows generated by investment decisions or reveal new information.

obligations as they fall due. In the event that an issuer defaults on its obligations, significant costs may arise, such as the direct costs of an administration process, or the indirect costs from a fire sale of valuable assets. At a certain point, issuing too much debt therefore starts to increase the cost of capital and reduce the market value of a firm.

It follows from the above that, up to a certain point, raising debt is beneficial because it reduces the post-tax cost of finance and increases firm value. This is illustrated graphically in Figure 1 below.

Figure 1: An illustrative diagram of the typical trade-off facing firms when setting gearing levels



However, it is now widely understood that alongside the trade-off between the tax shield and expected cost of financial distress, there are also a wider range of considerations that impact the 'optimal' capital structure. These additional considerations include:

- **Management incentives:** There are typically low levels of ownership among managers of large companies, which can generate conflicts of interest between managers and investors. The contractual obligations that are imposed on firms as a result of debt issuance can lower levels of free cash flow and the degree of managerial flexibility, which motivates management and encourages efficiency. In contrast, levels of debt that are too high can incentivise excessive risk taking, and lead to underinvestment in valuable projects (i.e. projects with a 'positive net present value').
- **Informational signals:** Managers and firm insiders are likely to possess more information about the performance and health of a company than external investors. Therefore, informational signals from the issuance of equity may be perceived negatively by investors, affecting market values accordingly, whereas the issuance of debt is likely to be perceived more positively.

Accordingly, firms may choose to fund investment from retained earnings or debt in the first instance.

- **Access to wider and deeper pools of capital:** Differing apportionment of risk between debt and equity allows firms to target different pools of capital from investment managers that are constrained in their activities (e.g. debt-only funds or equity investors with higher target rates of return). The use of leverage therefore enables access to wider and deeper pools of capital, which can lower a firm's cost of capital.

There are two main further considerations for water companies specifically, when considering their level of debt, due to the nature of Ofwat's regulatory regime. Under Ofwat's regulatory regime, customer bills are set to provide firms with an allowance for an efficient 'vanilla' cost of capital, which is set on a sector-wide basis. This is important because:

- A 'vanilla' cost of capital is a way of presenting the cost of capital estimate, which excludes the benefits arising from the tax shield on debt interest payments. Each company's own tax shield on debt interest is estimated separately and this saving is passed through to the customers of each company. Customers therefore benefit directly from tax savings from firms taking on debt in the form of lower bills.⁶
- The sector-wide vanilla cost of capital estimate is derived, in large part, from benchmarking average costs within the sector,⁷ such that: i) customers benefit directly from efficiencies to the sector-average cost of capital, as a result of firms optimising their capital structure through the use of debt, and ii) individual companies retain profits arising from their financing costs being below sector-wide allowances, incentivising firms to pursue efficient financing strategies.

The factors outlined above highlight the complex trade-offs facing water companies when considering whether and how much debt to issue. Importantly, an efficient firm will choose to issue the level of debt that balances these benefits and costs, which is highly likely to be above zero given the multiple benefits associated with raising debt.

Externalities arising from the financial distress of a water company

The section above discusses how an efficient water company will choose to issue a level of debt that balances the associated benefits and costs

⁶ We note that the large investment programme at PR24, along with the ability to deduct full capital expenditure, means that the tax shield is unlikely to reduce bills during PR24 in the same manner as it has done historically.

⁷ Embedded debt costs are now predominantly based upon sector-averages, new debt costs are based on a market-based benchmark that is adjusted for water-specific under/over performance, relative to this benchmark, and the cost of equity is derived using the capital asset pricing model (CAPM), where betas are estimated using listed water company comparators.

that the company will face, generating efficiencies that customers will enjoy through lower bills. Therefore, it is likely that the use of debt will play a positive role in water company financing, despite increasing the risk of financial distress.

The complex trade-offs also mean that companies and markets are likely to be best placed to identify the optimal gearing level.

However, water companies may not account for the full cost of financial distress to consumers and broader stakeholders in the sector, when evaluating the level of debt to be issued, if some of these costs are externalised such that they sit (or are expected to sit) with third parties, rather than the company and its shareholders. For example, there may be significant costs of resolving the financial affairs of a water company in distress that may fall on a broader group of stakeholders, or its customers may experience a service disruption or drop in service quality.

Therefore, water companies may issue more debt than the optimal level, where that optimal level would be based on a complete internalisation of the costs of financial distress.

This issue has traditionally been tackled by placing certain licence conditions on water companies and providing the regulator with monitoring and enforcement powers. More specifically, water companies are required to maintain investment grade credit ratings (which takes gearing levels into account) and a bespoke insolvency regime (known as the Special Administration Regime, or 'SAR') exists to rescue the regulated operating company as a going concern, or to transfer the regulated activities to another provider. More recently, in March 2023, Ofwat decided to further strengthen these provisions within water company licences by making a number of modifications⁸, including requiring that water companies maintain investment grade issuer credit ratings with at least two credit rating agencies, raising the 'cash lock-up' trigger to BBB/Baa2 (with negative outlook), and requiring that dividends take account of service delivery for customers and the environment over time, current and future investment needs and financial resilience over the long term.

An important question is whether these existing controls need further strengthening and/or more effective implementation. To answer this question, it is necessary to consider whether and to what extent excessive risk taking through elevated gearing levels has contributed to the current financial resilience issues in the sector.

Potential drivers of the current lack of financial resilience in the water sector

Certain commentators and stakeholders have attributed the financial resilience issues in water to *'serious economic mismanagement of*

⁸ Ofwat 'Decision under sections 13 and 12A of the Water Industry Act 1991 to modify the ring-fencing licence conditions of the largest undertakers' (March 2023).

companies, leading to unsustainable levels of debt and a high price for consumers.⁹ However, the financial resilience of a water company is likely to be affected by a wide range of factors that change over time, not just elevated gearing levels. Key additional factors include its expected profitability under regulatory allowances that are set during the price control process, and the financial riskiness of its operating activities, liquidity and wider financial risk management, such as the mix of floating and fixed rate debt.

Financial resilience issues in the water sector may be caused by:

- Ofwat's miscalibration of regulatory allowances and risk mitigation mechanisms that are insufficient to provide current and potential investors with required returns to compensate for the level of risk;
- Persistent operational inefficiencies of underperforming water companies;
- Unforeseen shocks and factors largely beyond the control of water companies or Ofwat; and/or
- Excessive risk-taking through elevated levels of gearing, and imprudent liquidity and financial risk management policies of certain water companies that were not adequately controlled by Ofwat's existing licencing, monitoring and enforcement powers (either because these powers were insufficient and/or because they were not implemented effectively).

It is important to assess the relative contribution of the above drivers to the financial resilience issues in water. This is because: i) before considering remedies for the financial resilience issue, it is necessary to assess which drivers are causing the issue, so that remedies can be targeted, and ii) any cost-benefit analysis of remedies will require consideration of the size of the benefits, in the form of reduced consumer harm.

We have not undertaken such an ex post exercise of the relative contribution of the drivers for the purposes of this note. However, the following evidence gathered in other fora suggests that excessive financial risk-taking, including through elevated gearing levels, may be an incomplete diagnosis of the drivers of the low levels of financial resilience in the water sector.

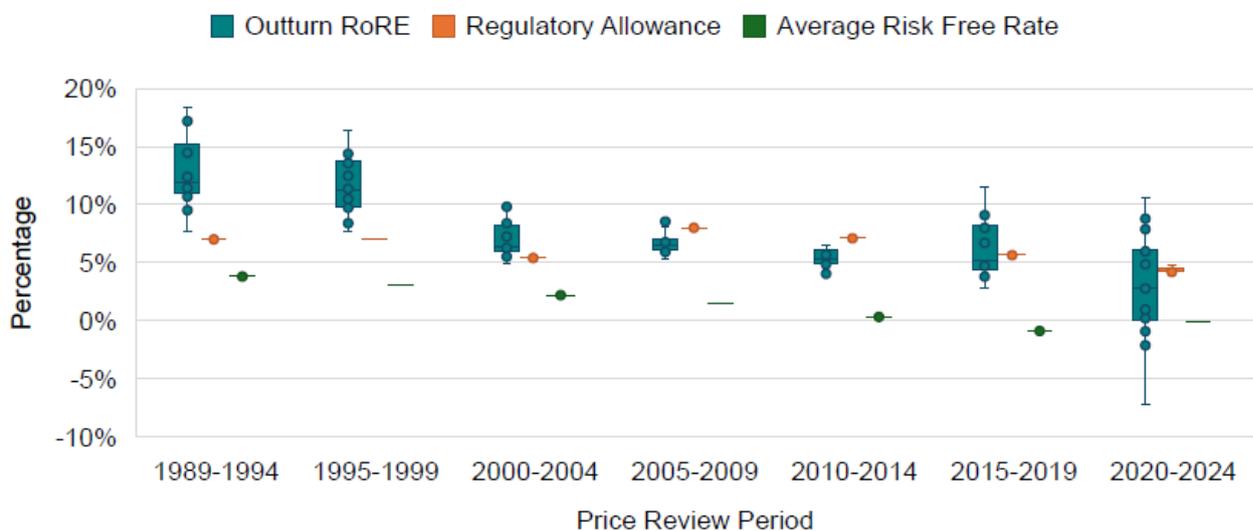
First, rates of return across the water sector have declined over time. The Independent Water Commission concludes that '*actual rates of return appear to have been out of line with levels of risk in the water sector in recent times*'¹⁰. It finds that measures of average returns have declined from around 13% during 1989-1994, to around 3% during 2020-24, the difference in outcomes between the best and worst performers has become much larger, and that some returns have now fallen below the

⁹ Environment, Food and Rural Affairs Committee, 'Priorities for water sector reform' (16 June 2025), para. 25

¹⁰ Independent Water Commission, 'Final Report' (21 July 2025), para. 751.

risk-free rate¹¹. For PR19 specifically, the outturn performance of the whole sector was just 1.7%, which is 240bp and 300bp below what Ofwat and the CMA respectively considered to be the required level or 'base return'. The Independent Water Commission's analysis is shown at Figure 2 below. For PR24, we note that five companies have rejected Ofwat's final determinations and have sought a redetermination from the CMA. Such systemic underperformance across the sector suggests that a substantial contributor to the lack of financial resilience is likely to be a miscalibration of regulatory allowances, which are insufficient to provide investors with required returns to compensate them for the level of risk and attract capital.¹²

Figure 2: Estimated Return on Regulatory Equity (RORE) since privatisation in England and Wales for WASCs and WOCs



Source: Independent Water Commission, 'Final Report' (21 July 2025), Figure 22

Second, the Competition and Markets Authority (CMA), in its Final Report during the PR19 Redeterminations (March 2021), stated that 'water companies have large physical asset bases and, by their nature, suffer from little variability in demand. This suggests relatively high levels of gearing are likely to be sustainable'¹³, and that 'gearing has varied over time across the industry, but overall has been at roughly its current level for 10–15 years. As agreed by Ofwat, even highly geared water companies were able to navigate the global financial crisis of 2008/09, arguably the most difficult financing environment in modern history, without evidence of financial distress or impact on either customers or the taxpayer. Nor has the COVID-19 pandemic pushed the highly geared

¹¹ Independent Water Commission, 'Final Report' (21 July 2025), Box 40.

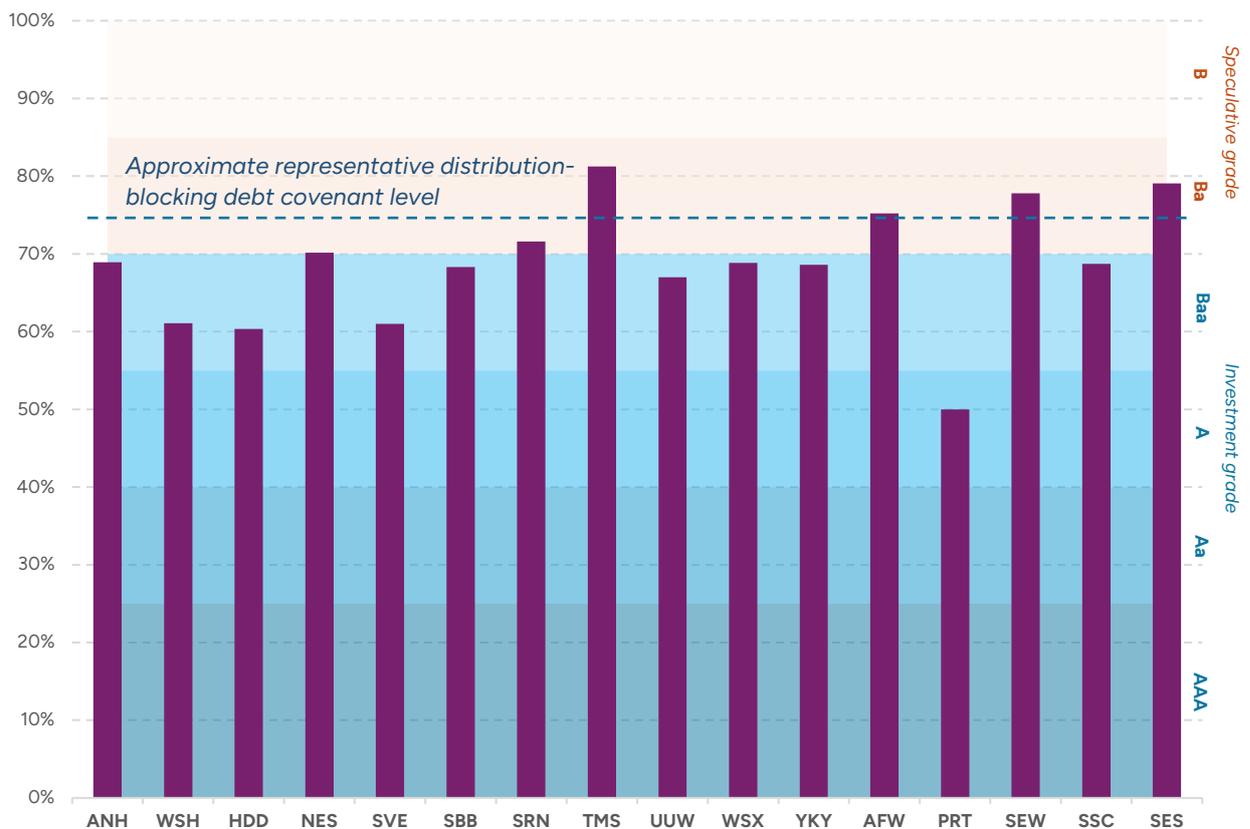
¹² Figure 2 also shows the increase in the range of returns over time, with some firms significantly underperforming against the regulatory allowance. It is noteworthy in the context of the current gearing discussion that such persistent underperformance without additional equity injections, may 'organically' raise gearing for these companies.

¹³ CMA, PR19 Redeterminations, para. 9.1202.

water companies into crisis.¹⁴ This suggests that an independent regulatory body did not consider gearing levels to be a concern, as recently as 2021.

Third, as shown in Figure 3 below, ten of sixteen water companies shown have regulatory gearing levels (as of March 2024)¹⁵ that are within the investment grade threshold that is defined by Moody's as a component of its rating methodology.¹⁶ Twelve of the sixteen companies shown have regulatory gearing levels beneath the approximate level at which distribution blocking gearing covenants apply for regulated utility bonds.¹⁷

Figure 3: Regulatory gearing across companies in the water sector in March 2024



Source: Ofwat Monitoring Financial Resilience, November 2024. Notes: Regulatory gearing (shown in purple) is calculated as Net Debt divided by RCV. Gearing thresholds by rating (shown in blue) are those defined by Moody's as a component of its rating methodology (Moody's Rating Methodology, Regulated Water Utilities, 18 August 2023). Ofgem's analysis of the threshold of distribution blocking gearing covenants (shown by a dashed blue line) according to seven recent bond prospectuses that are posted on the websites of Gas Distribution and Transmission companies (Ofgem RIIO-3 Sector Specific Methodology Decision – Finance Annex, para. 6.68).

Fourth, there have been significant increases in the cost of water company financing due to macroeconomic factors in recent times. For example, the average cost of sterling-denominated debt of non-financial corporates rated A or BBB has increased from c.2.2% in 2021 to over 6%

¹⁴ CMA, PR19 Redeterminations, para. 9.1203.

¹⁵ Ofwat Monitoring Financial Resilience, November 2024.

¹⁶ Moody's Rating Methodology, Regulated Water Utilities, 18 August 2023, page 6.

¹⁷ Ofgem RIIO-3 Sector Specific Methodology Decision – Finance Annex, para. 6.68.

at the start of 2025. Additionally, the impact of water company activity on the environment has attracted public scrutiny and political attention. It is arguable that changes in such factors were unforeseeable, but have nevertheless contributed to a rise in financial and political risk, deterring investment and undermining financial resilience.

Whilst the above evidence is directional only, it suggests that excessive financial risk taking, including through elevated gearing levels, may be an incomplete diagnosis of the drivers of the financial resilience issues in the water sector. We consider that a comprehensive analytical assessment of the relative contribution of the different drivers is required by the regulator, before identification and appraisal of remedies takes place.

Building financial resilience going forwards via regulatory change

Should a robust assessment of the drivers of the financial resilience issue find that elevated gearing levels was a material driver, it may be necessary to reconsider the implementation of existing controls and/or implement further controls via the following possible changes:

- **Implementing existing controls effectively:** Of course, existing controls and mechanisms will only be effective at building financial resilience to the extent that companies perceive a credible threat of consequences from breaching predefined thresholds. In this regard, we note that the Independent Water Commission heard from some stakeholders that a lack of credibility in the Special Administration Regime (SAR) may have encouraged owners and shareholders to take more risky decisions¹⁸.
- **Strengthening of financial distress mechanisms:** In principle, embedding mechanisms in the regulatory regime that go even further to ensure companies internalise the social cost of financial distress (or reduce the social cost) would incentivise companies to target a level of gearing (and risk-taking more broadly) that is more efficient from a social perspective. This could be achieved by taking steps to ensure that water companies have approved resolution plans, as proposed by the Independent Water Commission¹⁹. Resolution plans may include ‘bail-in’ provisions whereby existing investor claims are written down to some degree, which may be triggered when certain thresholds, such as licence conditions, have been breached for an extended period. Alternatively, water companies could issue financial instruments that contain contractual or statutory principal loss absorption mechanisms, with write-down or conversion provisions that strengthen the capital base of a water company in distress.
- **Strengthening of regulatory controls:** The introduction of resolution mechanisms into the regulatory regime, such as those

¹⁸ Independent Water Commission, ‘Final Report’ (21 July 2025), para. 779.

¹⁹ Independent Water Commission, ‘Final Report’ (21 July 2025), para. 794.

outlined above, may narrow the gap between the private and social costs of financial distress, potentially reducing the need to strengthen existing regulatory direct controls by incentivising increased financial resilience instead. However, additional controls on gearing or other financial metrics (which may extend to entities beyond the regulatory ring fence), may provide direct methods of controlling financial resilience. For example, Ofgem's RIIO-3 draft proposals includes an additional licence condition, where licensees are subject to a distribution lock-up provision if gearing exceeds 75%.²⁰

Finally, the regulator may feel the need to act (e.g. via strengthening financing distress mechanisms and/or regulatory controls), regardless of whether or not a robust assessment shows that excessive gearing levels materially contributed to the financial resilience issue. Whilst the potential additional remedies discussed above may further close the gap between the private and social costs of financial distress and therefore 'steer' the sector towards more optimal gearing levels, it is still important to assess whether the benefits of reduced harm to consumers outweighs the costs of introducing such additional remedies. This 'cost-benefit' assessment is particularly important in the current circumstances, given the counterintuitive risks of increasing the cost of capital (and in turn customer bills) through further regulatory controls, at a time when substantial amounts of new capital investment is required for PR24 and beyond.

²⁰ Ofgem RIIO-3 Draft Determination, Finance Annex, para. 6.4.