



The regulation, governance and performance of the water and sewerage industry in England and Wales

Sue Jaffer

To cite this article: Sue Jaffer (15 Jan 2025): The regulation, governance and performance of the water and sewerage industry in England and Wales, International Journal of Water Resources Development, DOI: [10.1080/07900627.2024.2442449](https://doi.org/10.1080/07900627.2024.2442449)

To link to this article: <https://doi.org/10.1080/07900627.2024.2442449>

 View supplementary material 

 Published online: 15 Jan 2025.

 Submit your article to this journal 

 View related articles 

 View Crossmark data 

VIEWPOINT



The regulation, governance and performance of the water and sewerage industry in England and Wales

Sue Jaffer 

Law School, La Trobe University, Melbourne, Australia

ABSTRACT

Regulation of the privatized water industry of England and Wales has failed across several dimensions, with illegal discharges into waterways, widespread non-compliance with environmental requirements and large-scale extraction of cash from the businesses. Analysis of the nature of these regulatory failures finds inappropriate corporate governance to be a major contributor, with the shareholder value paradigm creating damaging incentives for poor behaviour. Recent regulatory changes focus on introducing a 'corporate purpose' approach to governance, and the paper considers whether they will be enough to improve future performance.

ARTICLE HISTORY

Received 30 October 2024

Revised 9 December 2024

Accepted 11 December 2024

KEYWORDS

Regulation; corporate governance; water; sewerage; England and Wales; privatization; environment

Introduction

The poor performance of the privatized water and sewerage companies (WASCs) of England and Wales provides important lessons for effective regulation. There is widespread public anger at the discovery of widespread illegal discharges into waterways, while financial engineering has left some companies perilously fragile in financial terms. Regulation is seen as having failed, despite the extensive arrangements established at privatization. This article examines the key failures of the industry and its regulators, and identifies how mis-aligned corporate governance contributed to these poor outcomes. It also considers whether the recent governance changes implemented by the Water Services Regulation Authority (OFWAT) are likely to be sufficient to address the problems that have emerged.

A key driver for the privatization of water was a desire to remove the investment needs of the industry from the public sector borrowing requirement (PSBR). The intention was to harness private capital to address deteriorating infrastructure, rising backlogs of maintenance work, and improvements in environmental and drinking water standards imposed by European legislation (Lloyd Owen, 2024). Private ownership was expected to also unleash operating efficiencies and remove the problem of short term political spending cycles being imposed on long-term planning needs (Yarrow, 1986).

The ten water and sewerage companies (WASCs) of England and Wales were privatized by public flotation. Over time, six of the WASCs have been bought by privately held funds,

CONTACT Sue Jaffer  s.jaffer@latrobe.edu.au

 Supplemental data for this article can be accessed at <https://doi.org/10.1080/07900627.2024.2442449>

© 2025 Informa UK Limited, trading as Taylor & Francis Group

either private equity, infrastructure or pension funds. Dwr Cymru was transferred to a single-purpose not-for-profit company wholly funded by debt, leaving just three of the original 10 WASCs still listed on the stock exchange (United Utilities, Severn Trent and South West Water).

Three new regulatory bodies were established to control prices and to protect the environment: the National Rivers Authority (now the Environment Agency and Natural Resources Wales) to monitor river and environmental quality; the Drinking Water Inspectorate to monitor potable water quality; and OFWAT to control prices and monitor standards of service. Thus regulation was intended to ensure that the 'public good' aspects of utility services continued to be delivered to appropriate/improved standards, and to avoid monopoly pricing.

The importance of governance

Corporate governance underpins modern capitalism, providing the framework within which directors manage the businesses for which they are responsible. Milton Friedman popularized the notion that the directors of a corporation are responsible only for the interests of its shareholders, and this 'shareholder value' approach has become immensely influential (Friedman, 1962, 1970). However, the traditional 'shareholder value' approach to corporate governance has come under increasingly strident criticism, for damaging the long-term value of businesses, the environment and other stakeholders.

The global financial crisis highlighted the damage being done by real-life markets failing to conform to the assumptions of shareholder value theory. (Assumptions including perfectly competitive markets, no information symmetries and no externalities.) Shareholder value had placed excessive focus on short-term movements in share prices, at the expense of longer-term value, the environment and relationships with other stakeholders (Kay, 2012; Mayer, 2013; Stout, 2012). Moreover, shareholder value created incentives for business to lobby against and undermine regulation, with incentives to prioritize short term gains 'turbo-charged' by executive pay structures (Armour & Gordon, 2014).

In response, stakeholder capitalism gained some traction. Freeman argued that to sustain value, management needs to have regard to the interests of all stakeholder groups, including society and the environment (Freeman, 1984). Environmental, social and governance investing began to spread, with the UK's Financial Reporting Council and the US Business Roundtable issuing revised codes and principles.

Yet concerns continue over the failure of the social contract between corporations and society, with the rise of 'big tech' companies creating further worries about the 'rentier' nature of modern capitalism (Wolf, 2023; Zuboff, 2019).

Several authors have suggested that the answer lies in re-focussing corporate governance on the purpose of the corporation (Collier, 2018; Mayer, 2013). Mayer argued that purpose is distinct from profit and should not be driven by shareholders' interests alone. A corporate purpose approach enables executives to focus on the business of delivering value to customers and provides a robust method of taking account of externalities.

The nature of the regulatory failures

Water regulation has failed in three key areas: its inability to distinguish between efficiency savings and underspending, its failure to prevent financial engineering that left some companies over-burdened with debt and its failure to prevent deteriorating environmental performance and multiple compliance failures.

Efficiencies or underspending?

OFWAT established a retail price index (RPI)-X price regulation regime to protect customers from monopoly pricing while providing incentives for improved efficiency and continued investment (OFWAT, 1994). Under the regime, price caps are set for each company for a five-year period, sufficient to enable an efficient company to cover their operating costs and finance their functions. Explicit incentives for improved efficiency were provided and appropriate investment encouraged through an allowance for the cost of capital.

The influence of these twin drivers (the need for investment and the drive for efficiency improvements) is apparent throughout OFWAT's water pricing determinations. Investment in improved environmental quality and levels of service exert upward pressure on bills, while efficiency savings and reductions in financing costs exert a countervailing influence.

However, the regime created incentives for companies to inflate their cost estimates (Hall & Lobina, 2008; Helm, 2024), while the 'success' of companies in out-performing regulatory assumptions was not easily distinguished from underspending (Kay, 2000).

In order to reduce regulatory gaming and encourage greater accuracy in forecasting expenditure, OFWAT changed its methodology for the 2014 Price Review, introducing a 'menu-based' approach and accounting for total expenditure rather than separating operating and capital costs (OFWAT, 2014). Despite these changes, cumulative underspends by the industry remained significant. Three WASCs underspent their asset management plan (AMP6) Water Industry National Environment Programme by 43% – an underspend that 'beggars belief' (Cox, 2022, p. 8). Such underspends have allowed cash to be taken out of the businesses for shareholders and executives.

Thus, while regulation tried to provide appropriate incentives for efficiency and investment, it struggled in the face of information asymmetries. The industry uses assets that are largely hidden underground, manages a wide range of risks including climate change, and involves long timeframes for the delivery of outcomes to customers. Together these provide the industry with a significant informational advantage over regulators, which facilitates the extraction of cash for the benefit of shareholders.

Financial engineering and extraction of cash

The regulatory regime also failed to prevent extensive financial engineering, which has left some companies in perilous financial straits.

In preparation for the privatization, the WASCs had their debt forgiven and 'green dowries' (cash injections) provided. These were intended to strengthen their balance sheets in advance of the further debt and equity raisings that were anticipated, to finance

the planned capital investment programmes and maintain a sustainable financing structure (Schroders, 1989).

However, instead of contributing new equity, businesses relied heavily on debt funding, raising some £64 billion in debt since privatization. Over the same period the industry paid out £78 billion in dividends, equivalent to nearly half of the investment made in infrastructure (Plimmer & Hollowood, 2024).

The large asset base and debt-free balance sheets of the businesses made them attractive to private equity, whose business model uses leverage to increase the returns to equity. Moreover, there are many examples of the resultant high leverage leaving companies vulnerable to adverse changes in circumstances. New equity owners and debt holders typically shoulder the losses involved (Wolf, 2023). In this way private equity extracts value for the benefit of the few positioned as principals or senior management (Froud & Williams, 2007).

Now debt costs have spiralled due to higher interest rates just as industry cash flows have declined due to weaker performance and larger regulatory fines (Jenkins, 2024). It is no coincidence that the two businesses with the weakest financial positions, Thames and Southern Water, were both owned by private equity.

Why did regulation fail in this regard? The post-privatization regime imposed requirements on company groups to protect the financial viability of the core regulatory businesses. However, OFWAT focussed on identifying the appropriate allowed rate of return, with companies being free to determine their own financial structures, dividend streams and management pay structures.

OFWAT has long published annual 'Monitoring Financial Resilience' reports and requires companies to ensure that equity is sufficient to maintain financial resilience. The ring fence around the appointed company was strengthened in 2019, and new board leadership requirements imposed (Fletcher, 2019). Yet these requirements, or their enforcement, proved inadequate to the task.

The problem is that regulation struggles to be effective when it is working against incentives, and strong incentives are provided to senior management under the shareholder value paradigm – particularly under private equity (Kay, 2009).

In response OFWAT has made a number of changes to corporate governance arrangements to strengthen the safeguards: water company licences were amended to strengthen the ring fence, dividend payments were linked to performance and OFWAT was given the power to prevent the inappropriate payment of dividends (OFWAT, 2023a). These new powers were used to impose lockup measures on Thames, Southern and South East Water, to prohibit them from paying dividends without consent (OFWAT, 2024c).

Declining environmental performance

The most high-profile failure of regulation concerns the so-called sewerage scandals. Revelations of non-compliance with discharge consents has resulted in enforcement actions, fines and inquiries by parliamentary committees, the Office for Environmental Protection, the Environment Agency (EA) and OFWAT.

OFWAT and the EA both failed to uncover the scale of the breaches, as they relied extensively on self-monitoring by the businesses. The EA's annual enforcement budget had shrunk by 40% over a 12 year period, and prosecutions fell precipitously (Bullough,

2022). It was ‘citizen scientists’, such as the Windrush Against Sewage Pollution (WASP) campaign group, who focussed attention on the wrong-doing (House of Lords Industry and Regulators Committee, 2023). In response, some companies have attempted to restrict access to their incident data and/or provide data only in inaccessible formats (Ungoed-Thomas, 2024; Ford et al., 2024).

Following numerous investigations and inquiries, OFWAT has brought enforcement cases against all 11 WASCs (OFWAT, 2024b), the EPA launched many prosecutions and significant penalties have been imposed.

Figure 1 shows the value of penalties paid by the 10 WASCs and Scottish Water for environmental and customer protection violations. The figure shows the largest penalties were imposed on three of the privately owned businesses, Thames, Southern, and Yorkshire. By contrast, virtually no fines have been incurred by government owned Scottish Water.

The EA and the Welsh Office publish annual performance matrices which show achieved standards of performance for defined performance indicators. These can be converted into performance scores, which provide a broad-brush indication of performance relative to targets (see the online supplemental data). Charting the trend in overall score for each company then allows them to be grouped according to whether they display an ‘improving’, ‘declining’ or ‘mixed’ performance.

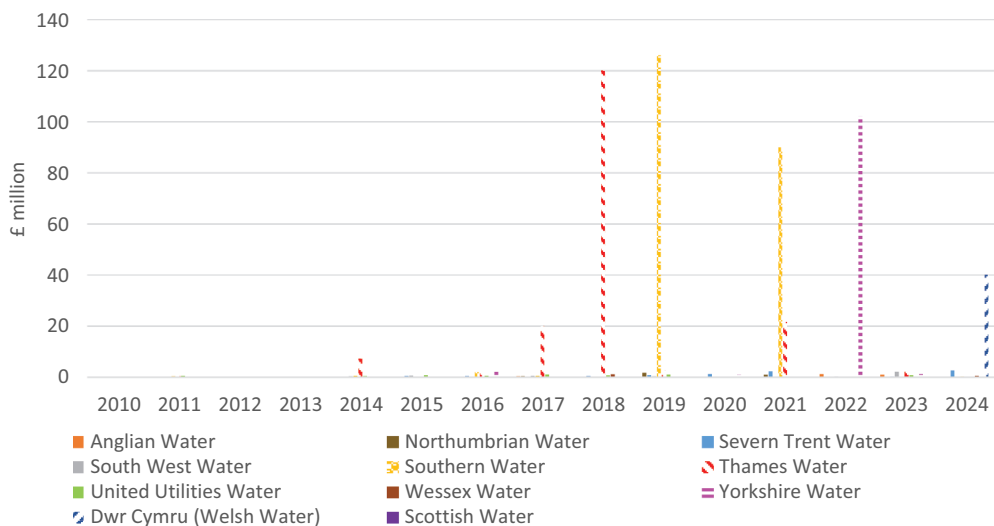


Figure 1. Violation tracker – fines paid £m. Notes: Includes penalties for environment related and consumer protection related offences. Most penalties are for environmental or water pollution violations. Consumer protection penalties were as follows: Dwr Cymru 2024 \$40m to be repaid to customers for misleading reports on leakage performance. Yorkshire 2022 £100m invested to reduce spills from storm overflows, following concern that lack of financial resilience would impact delivery of obligations. Southern 2019 £126m penalty for failures at sewerage treatment sites and mis-reporting of performance. Thames 2018 £120m for failing to deliver leakage control commitments. Thames 2014 £7m for sewer flooding. Source: <https://violationtrackeruk.goodjobsfirst.org/>.

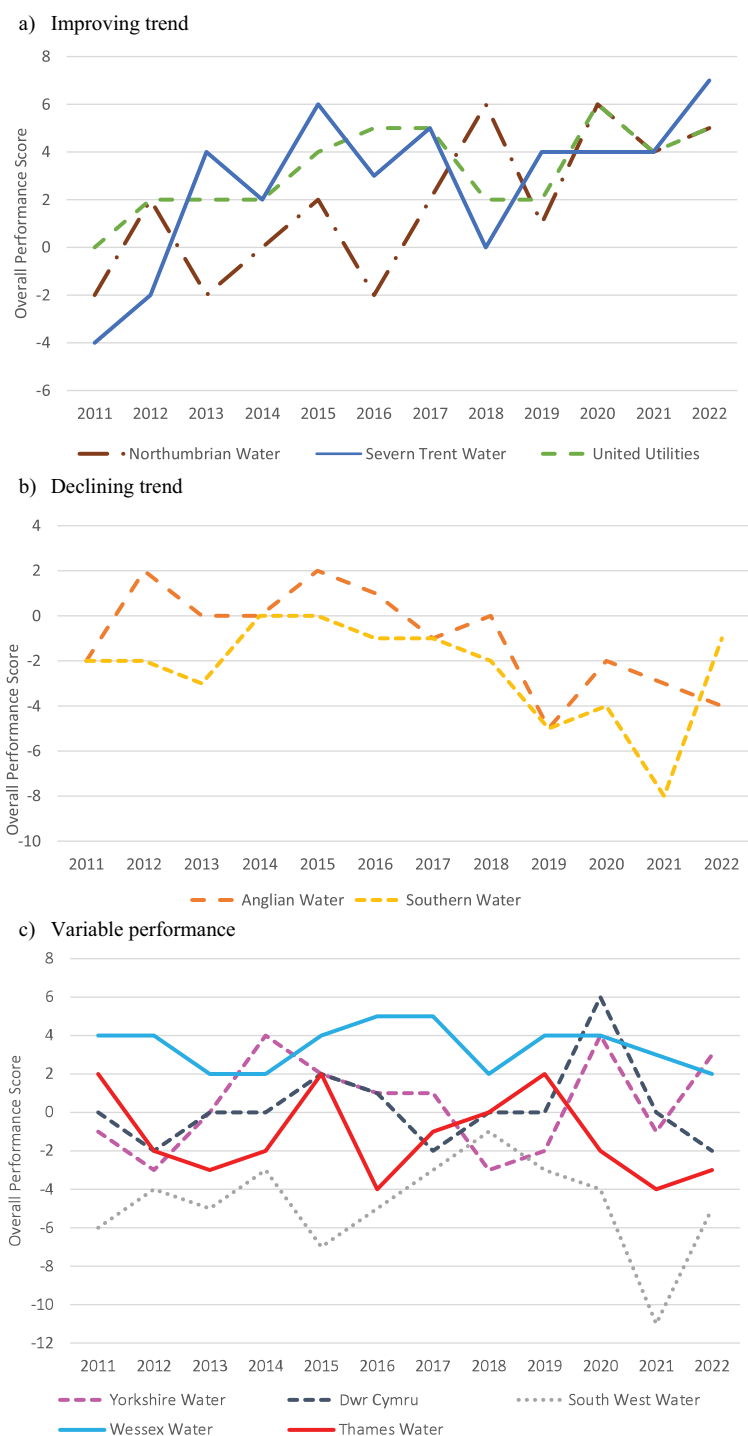


Figure 2. Environmental performance trends. Notes: See the online supplemental data for methodology for calculating performance scores. Sources: <https://www.gov.uk/government/collections/environment-agency-data-on-business-environmental-performance>; <https://naturalresources.wales/evidence-and-data/research-and-reports/water-reports/annual-performance-report-for-dwr-cymru-welsh-water/?lang=en>.

Figure 2 shows that an improving trend can be identified for three companies (Severn Trent, United Utilities and Northumbrian), two of which are publicly listed. Two of the privately owned WASCs exhibit a declining performance trend, Anglian and Southern, with the remaining WASCs showing variable performances, with no clear improving or declining trend.

OFWAT also monitors company performance against commitments, and for the last few years has rewarded/penalized companies for under- or out-performance (by adjusting customer prices). Figure 3 shows the best performers to be the publicly listed companies, Severn Trent and United Utilities.

OFWAT has noted that the listed equity companies are rated as better performers and have achieved higher regulatory standards than the privately owned businesses (Cox, 2020). Recently, OFWAT designated the business plans of just two companies as 'outstanding': both were publicly listed companies: Severn Trent and South West (OFWAT, 2024a).

Comparable performance data is not available for Scottish Water. Nonetheless, it is clear from the few fines and absence of adverse publicity that the publicly-owned business has performed relatively well in environmental terms. This accords with the warnings in the literature on corporate governance, that shareholder value provides incentives for businesses to disregard or abuse the environment in pursuit of higher returns to shareholders. The importance of appropriate corporate governance is also indicated by the superior environmental performance of the publicly listed companies compared to the privately owned businesses.

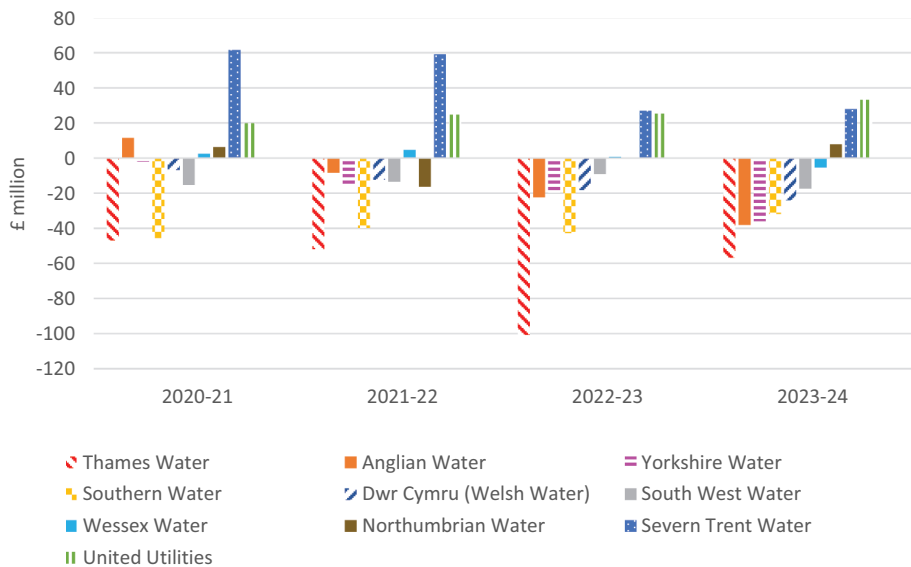


Figure 3. OFWAT under/out performance trends. Source: <https://www.ofwat.gov.uk/ofwat-calls-on-water-sector-to-improve-its-performance-after-companies-fall-short-on-targets/>.

OFWAT's recent changes to governance arrangements

Principles requiring transparency and good governance by the board were first introduced in 2014 and revised in 2019 (OFWAT, 2019). Recently OFWAT has introduced a series of further measures aimed at aligning corporate purpose and behaviour to the concerns of customers and the environment. These focus on the incentives created through executive pay and board leadership on corporate purpose.

The final methodology for the 2024 Price Review requires companies to ensure that performance related pay (PRP) is aligned to outcomes delivered to customers, with transparency over the targets, metrics and clawback arrangements (OFWAT, 2022). OFWAT also developed a PRP recovery mechanism, allowing OFWAT to intervene to prevent customers from funding executive pay when performance does not meet expectations (OFWAT, 2023b). In November 2024, OFWAT used these powers to stop the customers of Thames, Yorkshire and Dwr Cymru from paying £1.5 m of bonuses. Another six companies voluntarily reduced the amount of bonus payments to be paid by customers (OFWAT, 2024c). Notably, Scottish Water executives receive far lower pay than the directors of the WASCs (Buse & Bayliss, 2022).

The hope is that these changes will change the behaviour of senior management, so they deliver the improvements wanted by customers and needed for the environment, rather than seeking to deliver cash to shareholders through 'efficiency savings' and financial engineering.

Companies had previously been required to set a purpose for the company which recognized the needs of its wider stakeholders and to ensure that its culture was aligned with that purpose (Fletcher, 2019). To build on this, OFWAT identified three strategic goals (Cox, 2020):

- That business success depends (only) on achieving operational excellence.
- That the risks arising from climate change and population receive urgent attention.
- Companies focus more on providing wider public value, rather than on short term profits.

OFWAT sees the 2024 Price Review (PR24) as an opportunity for the industry to transform its performance and reputation. PR24 is intended to deliver a significant increase in enhancement spending, with companies demonstrating that their financing choices and PRP decisions serve the interests of customers, while ensuring that the businesses are financially resilient.

Are recent regulatory changes enough?

The sewage scandal has caused such damage to the legitimacy of the industry that, for a period, the Labour Party was putting forward a policy of re-nationalizing the industry and criticizing the regulatory system as 'not fit for purpose'. Indeed, Scottish Water's strong environmental performance and more modest executive salaries (and absence of dividend payments) suggests that government ownership does provide a more appropriate alignment of corporate governance to the concerns of customers and the needs of the environment than that delivered to date by the WASCs.

However, the ongoing investment needs of the industry remain a deterrent for government ownership, and the Labour Party has stepped back from re-nationalization. Given that a return to public ownership is off the table, will OFWAT's changes be sufficient to turn performance around? OFWAT points to some positive developments, including an increase in contributed equity (Chesworth, 2023), although Thames and Southern remain in a parlous financial state. In addition, OFWAT reports a turn-around in expenditure performance, with all companies spending more than committed in the current review period, compared to the significant under-spending reported in the past.

Are incentives now aligned better with the concerns of customers, or is this a temporary flurry of activity? It is too early to say, not least because investment planning in water and sewerage involves such long timeframes. Nonetheless, it is clear that the regulatory system as implemented at privatization was deficient. OFWAT's recognition of this, and the move towards corporate purpose, is to be welcomed, because it should focus the efforts of senior management on the concerns of customers and the public.

There are many dangers. One is whether OFWAT can institute a genuine change in approach to corporate governance in isolation from the rest of the economy, where the principles of shareholder value continue to play a major role. 'Purpose-washing' is as much of a concern as 'greenwashing'. A related concern is whether OFWAT has moved too far down the path of conduct regulation, effectively taking over the functions of the board (Helm, 2024). Companies risk getting bogged down by excessive regulation: Water UK has already criticized OFWAT's regulatory processes for the slow pace of investment to improve overflows (Plimmer, 2024).

Another problem is the scale of damage to the financial resilience of some of the WASCs. When companies are over-burdened by debt, managers become focused on financial constraints rather than on running the business. There are concerns that if the Special Administration Regime is triggered for Thames it could discourage future funding for the industry. On the other hand, it might facilitate the break up and re-listing of Thames on the stock exchange, removing the temptation for private equity to again gear up and extract further cash from the business (Helm, 2024).

A final danger is the difficulty of striking a balance between affordable prices for customers and the need for realistic budgets for maintenance and improvements. OFWAT seeks 'efficient' expenditures to limit the cost increases to customers, raising the risk of insufficient expenditure and poor service (Helm, 2024). The balance between affordability and environmental improvements has always been hard to navigate, with politicians asked to prioritize programmes and derogations granted to companies struggling with affordability issues. Nonetheless, loss of legitimacy coupled with high ongoing investment needs is a toxic cocktail, worsened by the prospect of more legal cases and larger fines.

Conclusions

The performance failures of the water industry have been very damaging. While the root causes are identifiable, they are deeply embedded in the UK regulatory and capitalist systems. The prime culprit is the excessive emphasis on short term outcomes engendered by the shareholder value system of corporate governance, accentuated by executive pay structures that turbo-charge adverse incentives. Regulation was intended to protect

customers and the public from market failures, but shareholder value creates incentives to extract value for shareholders and executives, and cheat on service delivery and environmental regulations.

Recent regulatory changes are aimed at aligning the objectives and incentives of management with the concerns of customers and the public; in effect a corporate purpose approach to governance. Corporate purpose is well-suited to the industry, given the strong public-good nature of the services it provides. It is also well suited because the industry incorporates many features that are problematic for a shareholder value approach, such as asymmetric information and the long-term nature of the assets involved.

A corporate purpose approach will not be easy to deliver, but given the failures outlined above, is likely to be the only route to improved performance and effective regulation. The financial fragility of some businesses creates both dangers and opportunities. It will also require adequate funding of the regulators to allow them to fulfil their monitoring functions.

While the reforms are aimed in the right direction, they involve difficult balancing acts: enabling the companies to finance the required investment in the face of lost legitimacy and concerns about the affordability of bills; and rewarding companies that deliver investment programmes that will take time to yield visible improvements to the environment and customers.

Acknowledgements

The author would like to thank Richard Briant, Alex Ford and Nicholas Morris for their helpful comments.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

No funding was received to assist with the preparation of this manuscript.

ORCID

Sue Jaffer  <http://orcid.org/0000-0003-1859-0814>

References

- Armour, J., & Gordon, J. (2014). Systemic harms and the limits of shareholder value. In N. Morris & D. Vines (Eds.), *Capital failure: Rebuilding trust in financial services* (1st ed., pp. 234–251). Oxford University Press.
- Bullough, O. (2022, August 4). Sewage sleuths: The men who revealed the slow, dirty death of Welsh and English rivers. *The Guardian*. <https://www.theguardian.com/environment/2022/aug/04/sewage-sleuths-river-pollution-slow-dirty-death-of-welsh-and-english-rivers>

- Buse, K., & Bayliss, K. (2022). England's privatised water: Profit over people and planet. *BMJ*, 378 (o2076). <http://dx.doi.org/10.1136/bmj.o2076>
- Chesworth, A. (2023). *Challenges and opportunities for the UK's water sector*. Keynote speech at Infralogic Investors Forum Europe. <https://www.ofwat.gov.uk/wp-content/uploads/2023/11/Infralogic-speech-AC-Oct23.pdf>
- Collier, P. (2018). *The future of capitalism: Facing the new anxieties*. Allen Lane/Penguin Random House UK.
- Cox, J. (2020). *Keynote address from Johnson Cox, utility week city conference friday 6 march*. OFWAT. <https://www.ofwat.gov.uk/wp-content/uploads/2020/03/Utility-Week-City-Conference-2020-Keynote-Jonson-Cox.pdf>
- Cox, J. (2022). *Context and priorities for water companies in meeting the expectations of customers, infrastructure, resilience, and environmental performance. Speech given at the Westminster Energy, Environment, and Transport Forum – Priorities for water management*. OFWAT. <https://www.ofwat.gov.uk/wp-content/uploads/2022/05/Jonson-Cox-CBE-WEET-conference-V2.pdf>
- Fletcher, R. (2019). *Regulators and the social contract, speech by Rachel Fletcher, Beesley Lecture, institute of directors*. OFWAT. <https://www.ofwat.gov.uk/wp-content/uploads/2019/10/RF-Beesley-Lecture-16-October-2019.pdf>
- Ford, A., Boakes, R., Richardson, J., & Owens, M. (2024). The false alarms and 'non-impacting' discharges from event duration monitors (EDM) by a UK water company (preprint). *Research Square*. <https://doi.org/10.21203/rs.3.rs-4012861/v1>
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman Publishing.
- Friedman, M. (1962). *Capitalism and freedom*. University of Chicago Press.
- Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. *New York Times Magazine*. <https://graphics8.nytimes.com/packages/pdf/business/miltonfriedman1970.pdf>
- Froud, J., & Williams, K. (2007). Private equity and the culture of value extraction. *New Political Economy*, 12(3), 405–420. <https://doi.org/10.1080/13563460701485656>
- Hall, D., & Lobina, E. (2008). *Water privatisation*. Public Services International Research Unit (PSIRU). [https://gala.gre.ac.uk/id/eprint/1704/1/PSIRU_Report_\(9820\)_-_2008-04-W-over.pdf](https://gala.gre.ac.uk/id/eprint/1704/1/PSIRU_Report_(9820)_-_2008-04-W-over.pdf)
- Helm, D. (2024). *A bad answer to the wrong questions: Ofwat's interim determination and its turnaround oversight regime for thames water*. OXERA. <https://dieterhelm.co.uk/publications/a-bad-answer-to-the-wrong-questions-ofwats-interim-determination-and-its-turnaround-oversight-regime-for-thames-water/>
- House of Lords Industry and Regulators Committee. (2023). *The affluent and the effluent: Cleaning up failures in water and sewage regulation*. UK Parliament Committees. <https://committees.parliament.uk/publications/34458/documents/189872/default/>
- Jenkins, P. (2024, April 15). What can water learn from global banking. *Financial Times*. <https://www.ft.com/content/5de3b208-279a-4f7a-91b3-cb77c4908646>
- Kay, J. A. (2000). Experiences from the United Kingdom in the regulation of privatised utilities, symposium on market liberalisation in Ireland: Competition, privatisation and regulatory issues. *Journal of the Statistical and Social Inquiry Society of Ireland*, XXIX. [jssisiVolXXIX_3347.pdf](https://www.jssisi.org.uk/jssisiVolXXIX_3347.pdf) (tcd.ie)
- Kay, J. A. (2009). *Narrow Banking: The reform of banking regulation*. <https://www.johnkay.com/wp-content/uploads/2009/12/JK-Narrow-Banking.pdf>
- Kay, J. A. (2012). *The Kay review of UK equity markets and long-term decision making: Final report*. Department for Business, Innovation and Skills. <https://assets.publishing.service.gov.uk/media/5a7ccdbed915d6b29fa8bea/bis-12-917-kay-review-of-equity-markets-final-report.pdf>
- Lloyd Owen, D. A. (2024). Water privatization in England & Wales: Past reasons, present problems & future prospects. *International Journal of Water Resources Development*, 1–16. <https://doi.org/10.1080/07900627.2024.2393833>
- Mayer, C. (2013). *Firm Commitment*. Oxford University Press.
- OFWAT. (1994). *Future charges for water and sewerage services: The outcome of the periodic review*. <https://www.ofwat.gov.uk/wp-content/uploads/2020/10/PR94-final-determinations-document.pdf>

- OFWAT. (2014). *Setting price controls for 2015-20: Overview*. https://www.ofwat.gov.uk/wp-content/uploads/2015/10/det_pr20141212final.pdf
- OFWAT. (2019). *Board leadership, transparency and governance – principles*. <https://www.ofwat.gov.uk/wp-content/uploads/2019/01/Board-leadership-transparency-and-governance-principles-2019-updated-July-2019.pdf>
- OFWAT. (2022). *Creating tomorrow, together: Our final methodology for PR24, Appendix 10: Aligning risk and reward*. https://www.ofwat.gov.uk/wp-content/uploads/2022/12/PR24_final_methodology_Appendix_10_Aligning_risk_and_return.pdf
- OFWAT. (2023a). *OFWAT announces new powers on water company dividends*. <https://www.ofwat.gov.uk/ofwat-announces-new-regulatory-controls-on-water-company-dividends/>
- OFWAT. (2023b). *Protecting customer interests on performance-related executive pay: 2022-23 assessment*. <https://www.ofwat.gov.uk/wp-content/uploads/2023/11/Protecting-customer-interests-on-performance-related-executive-pay-2022-23-assessment.pdf>
- OFWAT. (2024a). *PR24 draft determinations city briefing*. <https://www.ofwat.gov.uk/wp-content/uploads/2024/07/PR24-DD-City-briefing.pdf>
- OFWAT. (2024b). *OFWAT announces enforcement cases against four more companies in wastewater treatment investigation*. <https://www.ofwat.gov.uk/ofwat-announces-enforcement-cases-against-four-more-companies-in-wastewater-treatment-investigation/>
- OFWAT. (2024c). *73% of bonus payments will not be paid for by customers, says OFWAT*. <https://www.ofwat.gov.uk/73-of-bonus-payments-will-not-be-paid-for-by-customers-says-ofwat/>
- Plimmer, G. (2024, May 20). Under-fire UK water companies lash out at 'labyrinthine' regulatory system. *Financial Times*. <https://www.ft.com/content/856b49ee-5c89-44ad-96bb-0d4ffff4fcab?shareType=nongift>
- Plimmer, G., & Hollowood, E. (2024, 15 April). Water companies pay £2.5bn in dividends in two years as debt climbs by £8bn. *Financial Times*. <https://www.ft.com/content/c3cdfefb-c912-4699-bb7f-72c5c6515757>
- Schroders. (1989). *The water share offers: Pathfinder prospectus*. Burrups.
- Stout, L. (2012). *The shareholder value myth: How putting shareholders first harms investors. Corporations, and the Public*. Berrett-Koehler Publishers.
- Ungoed-Thomas, J. (2024, November 16). United utilities refuses to hand over data on sewage discharges into windermere. *The Guardian*. <https://www.theguardian.com/environment/2024/nov/16/united-utilities-refuses-to-hand-over-data-on-sewage-discharges-into-windermere>
- Wolf, M. (2023). *The Crisis of Democratic Capitalism*. Penguin Press.
- Yarrow, G. (1986). Privatisation in theory and practice. *Economic Policy*, 1(2), 323–377.
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. Profile Books.