

# How can the concept of public value influence UK network utility regulation?

**Martin Cave  
Janet Wright**

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# How can the concept of public value influence UK network utility regulation?

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## Abstract

There is much recent debate about extending the purposes of investor-owned firms to embrace the wider interests of a variety of stakeholders. Network regulatory decisions already involve extensive use of centralized social cost-benefit analysis to capture some aspects of public value. A gap remains which might be filled by a decentralized process, in which firms are supported by their regulator to expand their purposes to include the pursuit of public value, identified by regulated firms in collaboration with consumers and citizens, and delivered in innovative and entrepreneurial ways. We conclude in general, in application to a case study, that the approach has a role, but its success depends critically upon investor-owned utilities taking the change in purposes seriously; collecting and acting on information about consumer and citizen preferences systematically; and upon regulators avoiding incentive structures which guide companies down dysfunctional paths.

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## 1. Introduction: firms' purposes, public value in the context of utility regulation and the goal of this paper

### *From shareholder value to a broader public purpose for corporations*

The goal of this paper is to investigate how current debates about the broader public purposes of corporations can be brought to bear on the specifics of regulating investor-owned utilities. We address this issue through the lens of a regulator guided (as many are) by consumer and the public interest, within constraints set by maintaining the financiability of the firms they regulate.

Recent months have seen an accelerating general debate on extending the purposes of investor-owned firms to embrace the wider interests of a variety of stakeholders. These interests reflect the concept of 'public value,' a term introduced a quarter of a century ago in public management, to denote a more comprehensive and activist approach to finding out what the public wants, and providing it. A third related development is the growth of investment funds focusing on firms pursuing ESG (environmental, social and governance) goals. The purpose of this paper is to consider the implications of these linked debates for the regulation of investor-owned network utilities.

This view of a broader public purpose for business is at odds with the influential view of the goal of business expressed by Milton Friedman (1970: 17) 50 years ago, that 'there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud'. Friedman's view is consistent, to a greater or lesser degree, with many countries' corporate law. Thus, Section 172 of the 2006 UK Companies Act sets out that the directors of a company must promote the success of the company for the benefit of its 'members' i.e. shareholders, but also adds that they must 'have regard to' the interests of other stakeholders. The accompanying development of Corporate Social Responsibility (CSR) policies of limited scope and impact has often been seen as tokenism, or just designed to gloss reputation.

This is now changing. In 2019, the US-based Business Round Table committed itself to the objective of 'more responsible business' (BRT 2019). As described in Appendix 1, investors have rallied to ESG investment funds, which direct capital to firms and sectors focusing on environmental, social and governance objectives. Some companies are enshrining broader purposes in their legal constitutions.

Academic writers have contributed to this discussion. Thus, Colin Mayer (2018) argues in favour of the pursuit of wider social or public purposes by business, and

proposes that companies need explicitly to identify and enshrine such purposes in their legal structures. Mayer sets out a sweeping agenda for legal, institutional, accounting, and regulatory changes to drive the appropriate incentives, transparency, and accountability. He draws attention to three further types of capital of relevance to a purposeful firm (human, natural and social) – as well as financial capital. Alex Edmans (2020: 3) argues that adopting a radically different approach to business enterprise can create both profit for investors and value for society.

### *Towards a concept of 'public value'*

Before we consider whether and how a public value focus has usefulness and how it might be operationalized in a regulated corporate sector, it is first necessary to articulate what the term means.

Mayer approaches this at a high level by distinguishing positive and normative concepts of corporate purpose. As he (Mayer 2018: 110) puts it: 'the distinction is between "making a good" – the positive – and "doing good" – the normative.' He considers that this normative element involves companies going further than simply constraining their negative impacts on the environment and society, by encouraging positive contributions to societal improvements, which he links to the extension of human, natural and social capital. Economic regulation of network utilities in the UK and elsewhere has relied heavily on implementation of financial measures of the value of productive capital, via stipulation or calculation of the so-called regulatory asset base (RAB). Measurement of the three further forms of capital mentioned here is still in its infancy. But more progress has been made in measuring flows of costs and benefits.

This second normative component of purpose echoes the notion of public value, originated by Mark Moore (1995) in relation to public sector activities. (We focus on Moore's views in this section, but recognize that writers on public value form a broad church.) His proposal of 'public value' incorporates a more positive role for the relevant public decision taker to create more value through innovation and entrepreneurial activity, and to add further desiderata such as equity, equality, and the construction of social capital. He identifies a 'strategic triangle' of public value, comprising three inter-dependent processes of which each (defining public value, gaining authorization – formally or less formally – to achieve it, and building operational capacity to deliver it) is necessary to, and interacts with, the other two.

In 2011, Moore's concept was summarized in terms of its challenges to orthodoxy on three issues:

- governments are not simply providers of safety nets and other services and rule-setters, but shapers of the public sphere in many dimensions;

- public managers are not simply bureaucrats but stewards of public assets with ‘restless value-seeking imaginations’;
- public managers must work with stake-holders to become more adaptable to changing material and social conditions and to changing needs and political aspirations (Benington and Moore 2011: 3–4).

Significantly for what follows, each of these aspects focuses on the degree of activism required to achieve public value.

Moore (2019: 364) also notes in the context of marketed goods and services that a competitive process can spontaneously produce outcomes which reflect public value considerations: ‘When individuals use their market powers, as customers, investors and employees, to express their social and political values, *economic* as well as social and political pressure mounts on commercial executives.’ This phenomenon is shown in the competitive investment markets by the growth of ESG investment opportunities, the availability of which is fast becoming a requirement for fund managers.

These observations bring to mind Friedrich Hayek’s emphasis on the role which competition can play in meeting this discovery challenge. He noted that we cannot know in advance what we wish to discover, and that competition is essentially a process for discovering information and facts, which, if the process did not exist, would either remain unknown or would not be utilized (Hayek 2002). The same problem arises here, but the scope for competitive solutions in network utility regulation is present only in a limited way.

### *The focus of this paper*

In this paper we reflect on the implications of the concept of public value as part of a firm’s purpose for the debate on the regulation of investor-owned utilities.

Moore’s conception of public value originated in the environment of strategic management in government (local, regional or national). Governments have a monopoly on the legitimate use of force in society, and have the capacity to raise taxes and make unrequited payments. They are not investor-owned. Although governments sell or charge for certain services, such as planning consents, predominantly they engage in non-market transactions with the groups they serve – as for instance, in the provision of police and defence services, the operation of a welfare system, the provision of education and health care, often the construction of roads, and so on. They are also democratically accountable through a political process in a fashion which does not apply to standard firms providing marketed services.

Network utilities are in many cases (and particularly in the UK) investor-owned but they provide what are regarded as ‘essential services’ to households and businesses in the form of water, sewerage, energy, transport and

telecommunications. They are already subject to intervention in their activities by a public authority – a regulator – with a duty to protect customers. This means that the debate around the public purpose of utility companies and, by implication, the part played by the pursuit of profit resonates particularly loudly in this sector. A symptom of this is the recent revival of the debate about whether such services are better provided under public or private ownership.

As distinct from the provision of many public services, the presence both of a regulator charged with statutory duties relating to the service to be provided, and of a regulatee providing the service directly, creates an extra layer in the pursuit of public value. It introduces an agency problem, which can be solved at either or both of two levels: firstly, creating a situation in which the objectives of the two parties are aligned (as Mayer and others propose), and secondly, by the regulator introducing specific ‘private value’ incentives for the regulated firm to pursue public value. We show below that these approaches can co-exist. Given the notorious difficulty of designing efficient incentive schemes for regulated firms, having significant alignment of objectives is a great advantage.

We have chosen to take the England and Wales water and sewerage sector as a case study for our discussion for two reasons. Firstly, the scale of public value impacts in that sector (public health, environmental impacts, climate change and resilience, community impacts, distributional impacts) is particularly strong. Secondly, the relevant regulator (Ofwat) has been a pathbreaker in requiring its regulatees to define their wider purposes and show that they are pursuing them, within the context of consideration of public value.

Section 2 below considers how the pursuit of public value fits into the developing framework for regulation of UK network utilities (which is itself heavily reliant on the techniques of top-down social cost-benefit analysis), and sets out our hypothesis of the ‘decentralizing’ benefits which the explicit incorporation of public value can play in this process. Section 3 briefly describes salient features of the regulatory regime for the England and Wales water sector, while section 4 contains an illustrative discussion of how public value goals have impinged upon the most recent price control in that sector. Section 5 summarizes our conclusions both on the case study and on the wider questions at stake.

At the same time we recognize that there are a large number of potential alternative ways in which public value can be taken into account in utility regulation. A more comprehensive review of these would be a useful further step.

## **2. Public value in the context of utility regulation**

The goal of this section is to compare the pursuit of public value through regulation with current practice, to specify examples of cases and issues which are likely to lead



to the achievement of public value, and to identify in outline a means by which the pursuit of public value might be integrated into existing regulation.

### *What does a public value objective add to traditional network utility regulation?*

Here we seek to establish the links between the new public value discussion and the traditional categories used by regulators conducting economic or social cost-benefit analysis. The present regulatory approach draws strongly upon the use of this tool.

In the case of consumption of most goods and services, the costs of supply are borne (almost) entirely by the provider and the benefits accrue (almost) entirely to the consumer. These are *private goods*, generating exclusively private value.

Departures from this model arise in a number of well-known cases:

- *Public goods* have the property that if they are made available in any quantity to one person they are also available in the same quantity level to all members of a larger group – which may be local or wider. Environmental benefits are a frequently cited example of a public good.
- *Externalities* arise where the production or consumption of a good imposes involuntary costs or benefits on others, than the producer or direct consumer. For example, the use of an internal combustion engine vehicle affects others, than its driver and passengers, because of the harmful carbon and other emissions the vehicle produces.

Separately, there may also be concerns about the impact on the distribution of income of the prices of particular goods and services. This is likely to loom large in the regulation of utilities, which produce essential services needed by every household. Almost all regulatory decisions are taken in the shadow of the implied obligation to consider wider distributional issues thus created.

In the regulated utilities sector, the ‘natural monopoly’ property of the distribution network and other fixed assets used to supply services such as energy, water and fixed telecommunications, have already required (particularly, but not only, when the assets are privately owned) control of the prices and levels of investment chosen by the firms supplying network services. In essence, the regulator has a large hand in determining the need for investment and renewal projects, either by deciding them itself or by setting out the rules according to which firms must justify their own proposals. It also normally caps the prices the firm can charge to the level of efficient costs, although it may not always succeed in this task.

A ‘private value’ assessment of a network expansion project would compile estimates of the costs the companies would incur in implementing and operating the project over its lifetime, and compare them with the flow of monetary revenues over the same period (which might in some circumstances be a proxy for

private consumer benefits); both flows being adjusted by an appropriate discount rate.

But this would obviously leave out collateral effects accruing free of charge to, or imposed without payment upon, members of the public or third parties at large – for example, in the form of externalities and public goods. Social cost benefit-analysis (CBA) seeks to fill in this gap, by filling in the missing valuations, such as for protection from pollution damage.

This would involve the identification and quantification of the missing variables. It is recognized that in some cases either or both of quantification and valuation may be problematic. As shown in the Department for Culture, Media and Sport report (DCMS 2015), these tasks can be addressed either by ‘economic’ tools, such as analysis of revealed or stated preference, or by other discovery processes such as democratic processes or citizens’ juries.

In the UK, HM Treasury (the finance and economics ministry), provides guidance on how to conduct what can be described as top-down appraisals of policies, programmes and projects in the form of *The Green Book*, which ‘applies to all government departments, arm’s length public bodies with responsibility derived from central government for public funds and regulatory authorities’(HM Treasury 2020: 3) Essentially, it is a guide on how to conduct a social cost-benefit analysis.

*The Green Book* acknowledges (HM Treasury 2020: 78–81) that in some cases goals of equity and equality may make it appropriate to analyse the distributional consequences of interventions. It also notes the need, in appropriate circumstances, to take account of externalities, public goods, and other spill-overs, recognizing the problems of valuation involved. In 2020, it added supplementary guidance for valuing energy use and emissions (BEIS 2019).

*The Green Book* also refers (HM Treasury 2020: 39) to the benefits of innovation, via incorporation of potential productivity effects in the evaluation of particular projects or policies. But it may be difficult – using either case studies or aggregate data – to capture the incremental demonstration effect of a successful innovation, which is nonetheless an important element in all accounts of public value.

In summary, standard UK top-down appraisal methods implemented by superordinate bodies (the UK Treasury, Government departments, regulatory bodies), go some way towards accounting for some aspects of what fall into the category of public value. But, as we argue below, a centralized appraisal is unlikely to be able to cope with all the public value opportunities

*The prevalence of public value in the regulated utility sector*

To illustrate the multiple ways in which public value can be generated in the regulated network utility sector, Table 1 furnishes a non-exhaustive catalogue of some of the most prominent. We also address here the important question of which party or parties directly shoulder the burden of paying for the outcomes pursued – a question that automatically engages the distributional aspect of public value.

Examples of public value activities in the network utilities sector include:.

- (1) Reduced ‘social’ prices are made available to specified classes of vulnerable household customers; the cost of this is mutualized via monopoly price controls on all other customers.
- (2) A regulated company puts into effect a CBA-assessed environmental scheme which generates public value for all residents in an area, and is fully reimbursed for the costs by that, or a wider set of customers as a group.
- (3) A firm chooses, at its own extra cost, a more environmentally friendly but more expensive scheme to achieve a required output.
- (4) A regulated utility finds that greater expenditure on debt counselling or advice on the maximization of customers’ government benefits can reduce its customers’ debt and save money: this is a win-win outcome for both sides.
- (5) A regulated company making excess profits from customers is persuaded to redistribute some of those profits to its customers by price cuts.
- (6) A firm seeks out a partnership with third parties to deliver environmental improvements at lower cost than a traditional capital solution and/or to generate additional environmental or community improvement.

Note that the cases show different answers to the question: ‘which party pays the direct costs of providing the public value?’ Implicitly, we include in the concept certain cases where there is no profit sacrifice by the investors who finance a project generating consumer surplus for consumers. In other words, the question of whether public value exists is not determined by who pays for it. The caveat to this is that, where distributional goals are important, such profit sacrifice by investors may generate additional ‘distributional’ public value.

In (1) and (2) above, consumers collectively pay for public value. In (3) the company pays, but its ESG investors may willingly shoulder the costs.

In (4) everyone comes out a winner (apparently). Standard economic reasoning would lead one to suppose that these cases – a win-win requiring no side payments – would automatically be taken up without prompting by a regulator;

but the absence of competition and the impact of past regulation itself of the utility sector may impede such outcomes.

In (5), the regulated company and its investors partially rescue consumers from a bad outcome caused by regulatory failure. In (6) the bill is often paid by consumers; it may incorporate a reward to the firm for discovering a more economical means to the chosen aim.

### *How public value can better be achieved through regulation of the network utility sector*

We noted above that public value is a broad concept, which goes beyond the correction of static market failures, to include distributional considerations, the benefits of innovation, many other impacts on customer/citizen welfare, as well as their capacity collectively to influence outcomes.

The regulated network utilities sector, supplying essential services using complex and ubiquitous assets, offers an environment in which many opportunities for the creation of public value exist. The sector has also, since privatization, intertwined in a complex way the statutory objectives and powers of economic regulators, and the interests of private sector firms and their investors.

In theory, a way exists for the regulator, using *The Green Book*, to incorporate some dimensions or manifestations of public value, including externalities and public goods and distributional effects, directly into centralized decisions.

However, there are reasons to believe that this centralized process leaves a large gap, based on both a priori and observational grounds. The regulator suffers an informational disadvantage compared with the firm in acquiring the requisite information to make the detailed appraisals needed outside the largest projects. This means that the possibilities for public benefit will not be exhausted. Amongst the actors present in the current institutional framework, the firm – which is much closer to its local customers, communities and other stakeholders – is quite likely to be able to do better across the piece, although it may, of course, need to acquire for this purpose, expertise outside its own operational requirements. This situation arises in part because the identification and generation of granular public value are likely to be associated with innovation and entrepreneurship – characteristics which regulators rarely have the opportunity or capacity to exhibit.

In these conditions, a decentralized method of discovering and delivering public value may be required, which delegates important decisions to regulated firms. This might be accomplished by:

- requiring the regulated firm to research and specify its objectives in the public value space (in a reciprocal process involving stakeholders' formulation of their own interests and expectations);

- where appropriate, creating and calibrating an incentive system for the firm which ties its rewards to its capacity to identify what the public wants and then to deliver it; here, miscalibration of rewards has the capacity to negate the benefits of the process;
- measuring and monitoring the outputs produced.

There is, however, a downside risk inherent in the decentralization process. If the firm is not fully signed up to the public value objective, it might be tempted to use its decentralized gate-keeper role to enhance its own profits. It could do this by choice of project, using its access to private cost data. For example, having assessed the public or social value associated with any project, it might propose being remunerated for it by an amount close to that value, even if its actual costs were lower. The asymmetry of information associated with smaller, decentrally assessed projects may create opportunities for such conduct, which might add to public value or welfare in net terms, but the bulk of rewards would accrue not to the public but to investors.

We now examine the feasibility of introducing these ideas by examining the extent to which they have begun to be applied in the regulation of the England and Wales water industry.

### **3. The water and sewerage sector of England and Wales and its regulation**

The sector was privatized in 1989. After some ownership changes, it now comprises nine large water and sewerage companies and eight smaller water-only companies. They are highly vertically integrated, except that since 2017 competition has been opened up for the retailing of services to non-household customers.

Economic regulation of the sector is undertaken by Ofwat, and has revolved principally around a series of 5-year price controls – the most recent, PR19, covering the years 2020–2025. These fix retail prices for water and sewerage services over the period, using the incentive-based price cap model, and also determine certain wholesale prices. The price caps incorporate funding for a number of individually approved major investment projects, as well as being intended to cover the efficiently incurred costs of the maintenance and replacement of assets, and efficient operating costs. On average the companies have made returns over the period since privatization in excess of their allowed cost of capital. This has been due to cost savings on projects, some increases in efficiency, and financial engineering associated with the replacement of equity with debt. This excess has from time to time evoked significant public and government criticism as illustrated in an outspoken speech by the then Environment Secretary of State, Michael Gove (2018).

The policy and regulatory objectives in the sector have changed over the period since 1989. In the first decade after privatization regulation focused on the control of monopoly profits, while allowing increasing investment to meet drinking water quality and environmental standards. In the second decade in particular, environmental investment continued to rise. Then, beginning in the third decade, there was more focus on the affordability of water services, especially to households on low incomes.

More recently, Ofwat has built upon these developments, setting delivery targets and incentives designed to achieve specified outcomes, and increasingly using the language of companies' purposes. In 2019, Ofwat led the way by introducing binding principles of Board Leadership and Governance into the licences of all the water companies (Ofwat 2019a, 2019b). The first principle requires each company's Board to set a purpose for the company that recognizes the needs of its wider stakeholders as well as its shareholders, and to ensure that culture aligns. Thus, in that year Thames Water's stated purpose became: 'to build a better future for its customers, region and planet', and Bristol Water launched its 'social contract'. Anglian Water has changed its Articles of Association to reflect these broader purposes (Fletcher 2019). Ofwat (2020) welcomed in January 2020 the fact that most companies had 'refreshed' their purposes, but indicated some disappointment in the depth of supporting evidence of how this was embedded in their businesses.

Recently, Ofwat has taken things further. In October 2019, under a heading 'what does public value mean?' it stated that (Ofwat 2019c: 37):

- Every part of the business and every business decision is seen as an opportunity to add value to society. Over time, there is a sustained culture and mind-set shift that stretches from boardroom to frontline employees ... .
- The company aims to go beyond the standards and norms set by regulators where this is the right thing to do. It is proactive in engaging with regulators and policy makers to highlight and help remove regulatory barriers.
- A commitment to public purpose goes beyond bolting together existing corporate social responsibility activities or pursuing initiatives without a deep understanding of communities' needs.

These goals make it essential for the firm to know what the public wants. This has been implemented by requiring companies, since 2014, to step up their engagement with customers over their preferences and distributional judgements, and to establish consumer challenge groups.

Some of the early effects of these developments on the most recent price control covering 2020–2025 are outlined below. However, Ofwat published its final determination of the price control almost simultaneously with the publication of

the October 2019 strategy document. It is thus not to be expected that the document's provisions, in relation to public purposes, would be fully implemented in the early 2019 company business plans described below. The full implications of Ofwat's innovative approach remain to be seen.

#### 4. The pursuit of public value through regulation of the water industry

Here we illustrate under the three headings how some of the goals of public value were embedded in the business plans of the companies and the final price control determinations of the regulator. Ofwat, for the price control period 2020–2025 known as PR19.

- environmental benefits
- distributional fairness, and
- consumer/citizen participation in decision-taking.

We are aware of the fact that other regulated sectors – especially in the communications sector – are likely to be capable of delivering other aspects of public value, but we have chosen the three which appear to have particular salience in the water and sewerage sector.

##### *Environmental benefits*

Creating public value in the environmental arena is intrinsic to the business of water companies. The large investment (£130 billion+) that the water companies have invested in their assets and services since privatization has to a significant extent been driven by the need to 'clean up' their impacts on the aquatic environment. This has delivered public value, paid for by customers through their bills. In PR19, environmental investment continues at some £5 billion.

Decisions over these expenditures have increasingly been delegated to companies, increasing the scope for discovery and innovation and customer and stakeholder participation. Environmental targets are increasingly set by reference to outcomes rather than by technical input standards or processes. As indicated above, this has been complemented since 2014 by adding outcome regulation (via targets and incentives) to cost and efficiency regulation.

Companies are required by Ofwat to interrogate customers to establish their preferences for different service, environmental and community outcomes, and to set targets and incentive rates by reference to a CBA based process drawing substantively on 'willingness to pay' estimates, latterly 'triangulated' with evidence from a wider range of methods and sources. Statutory obligations provide a constraint, while additional outcomes are more flexibly determined through complex optimization of costs and benefits. (For more details, see Appendix 2.) Thus decentralized mechanisms have been introduced for 'discovering' public value and incentives established to achieve it by driving innovation.

Next, we consider how companies have responded in their business plans. Overall, Ofwat highlights a range of promised commitments, such as greenhouse gas reductions, increases in renewable energy, reductions in water consumption, and reduced river and chalk stream pollution, and emphasizes commitment to using novel approaches to delivery. As well as performance commitments relating to the core environmental programme (known as WINEP), driven largely by statutory requirements, Ofwat notes that companies have committed to 96 specific bespoke pledges on the environment, including for biodiversity and carbon reduction, and the development of natural capital accounts by a number of companies.

Most companies devote chapters of their business plans to innovation and emphasize how they have engaged third parties and customers in delivery. Catchment and nature-based approaches appear as a key demonstration of innovation in all of the plans. These involve collaboration with other stakeholders, such as farmers and landowners, to determine ‘natural solutions’ to improving a water environment outcome, allowing more to be achieved for less. Ofwat’s Final Determination for PR19 provides examples of catchment solutions (Ofwat 2019c: 9–11) Ofwat states that up to 2025, companies will increase the number of catchment-based solutions by two-thirds, and will have committed to 1,200 schemes being in place.

While there is thus a more transparent recording of the wider environmental benefits that companies’ activities aim to deliver, which assists accountability, comparison across time is hampered by inconsistent reporting methods. It is also hard to draw from this evidence of a stronger commitment to public purpose per se – rather than a response to incentives, although a greater focus on regulatory outcomes can easily be re-expressed as the pursuit of public purposes.

4.2. Finally, there is little evidence of shareholder contributions in the environmental sphere. Some companies have pledged investor funds to new general research/innovation facilities (from which the firm will draw private as well as public value).

### *Distributional fairness*

In this section we consider the degree to which companies may be contributing to the creation of public value through enhancing distributional fairness. As before we are particularly interested in occasions when companies have acted in consultation with consumers in a decentralized way, rather than in obedience to regulatory diktats. Initiatives which require the voluntary contribution of investors’ money (rather than cross-subsidy by other consumers) are also of interest. We look at two aspects:

- distributional fairness as between investors and customers, and
- distributional fairness as between different groups of customers.



### *The balance between investors and customers*

Investors' returns are set through a regulatory cost of capital determined at each price control, amended by rewards or penalties resulting from efficiency and outcome incentives. History since privatization has shown earnings by investors persistently to exceed the cost of capital, although the amount of this excess is disputed (Citizens' Advice 2019).

In this context, a commitment to pursuing public value by distributional means might require some regulatory effort to minimise the scope for any 'undeserved' element of excess returns, and indeed this can be observed over succeeding price reviews. Ofwat has progressively tightened loopholes, adapting regulation to incentivize greater 'truth telling' in business plans and introduced further layers of scrutiny of plans for instance through customer challenge groups.

Distributional fairness has also been spotlighted more recently by Ofwat's 'Putting the sector in balance' initiative (Ofwat 2018). This has sought to address high levels of executive pay and dividend payouts that continue even when companies' service performance may have been poor, and windfall profits that have been derived from unanticipated movements in capital markets. Ofwat has also been concerned about high gearing levels, considering that this compromises financial resilience in a manner which could rebound on customers, today and/or in the future.

The response to this has been patchy. While in PR19 all companies adopted Ofwat's gearing outperformance sharing mechanism, few companies responded to the regulators call for companies to share outperformance more broadly. Five companies did so in total. For example:

- South West Water's scheme was regarded by Ofwat as 'high quality and ambitious' – amongst other things, it will share some £20 million of its outperformance on the embedded cost of debt over 2020–2025.
- United Utilities will match any shareholder distributions from outperformance with contributions to its community fund, if they are more than 2% above its base dividend.
- Wessex Water has committed to reinvesting 20% of its net outcome delivery incentive payments in community projects.
- Dwr Cymru will share any net outperformance from outcome delivery incentives, half via bill reductions.

The scale of these distributions will become apparent over the next five years.

## **The balance between groups of customers**

Affordability and vulnerability were two of Ofwat's key themes for PR19 and two of its assessment criteria for the business plans. In recent years, companies have been expected to introduce measures to support vulnerable customers, including social tariffs, assistance with debt, etc. Social tariff arrangements have depended on companies obtaining their customers' support for the cross-subsidy that is implicitly involved.

In January 2019, Ofwat commended its three fast-tracked companies on their approach to vulnerability. It commended South West Water and Severn Trent for their measures to help customers struggling with their bills, and United Utilities for a £71 million company contribution to social tariffs. Thus, some companies have been incentivized by the regulatory framework to enhance their offerings for vulnerable customers via voluntary investor contributions. The scale of these contributions remains to be seen.

### *Consumer / citizen participation in decision taking*

Ofwat put 'customer engagement' at the heart of its approach in PR19, expecting companies to centre their business plans on understanding and responding to their customers' needs and preferences.

Its expectations built on those underpinning the previous price review covering 2015–2020, known as PR14, where the regulator had established Consumer Challenge Groups (CCGs). The CCGs provide monitoring and critical review of the quality of the companies' engagement with customers, and the degree to which their business plans can be seen to be based on these learnings. Customer engagement at PR19 was expected to step up from the approach in PR14.

In PR19, Ofwat urged companies to draw on evidence from a wider range of sources, including revealed as well as stated preference techniques, and learnings from behavioural economics, new experimental and 'immersive' qualitative engagement techniques, and to draw on evidence from their day to day business interactions with customers. This is an important part of the process, but not easy to accomplish. In addition, Ofwat wanted to see participation by customers in shaping the plan, through 'co-creation' and 'co-delivery', its final methodology emphasizing the former.

From a public value perspective, the degree of customer engagement in PR19 reflects a step change from previously, although arguably it is still centred on research techniques, workshops, surveys and ensuing analytics. It remains more 'research' oriented than truly participatory in terms of influencing and decision making. One company that has gone further has been South West Water, with its plan to offer shares in the company to customers as a means of sharing outperformance, alongside public quarterly meetings with its 'Water Share+ Panel' as the panel monitors the delivery of PR19.

The CCGs, comprised individuals from relevant organizations, are not a direct form of engagement with representative customers. Since the price review, they are variously playing a monitoring role in the delivery period. Several are understood to be rethinking their role to include consideration of how the company is addressing the public value challenge.

A key question from a public value perspective concerns the extent to which the present approach gives a true and representative customer contribution to companies' business plans and to their ongoing strategies and activities. A recent paper prepared for the Consumer Council for Water (a statutory consumer body for the water industry in England and Wales), has expressed a number of concerns with the research methods and made a number of recommendations for improvement (CCW 2020). These include making better use of 'business as usual' data, improving the context and learning environments for customers participating in research, introducing the use of 'expert consumer' panels on an ongoing basis, and providing more feedback loops to customers participating in the research.

But a major question remains. The activities of water companies – particularly when they involve public value – affect not only their customers, but citizens and wider communities as well, and sometimes cross company boundaries. Ways have to be found for gathering and involving a much wider set of voices than has been achieved to date. In addition, where public value trade-offs are needed, consideration should be given as to how (and by whom) these are made; this may involve some revisiting of the division of labour in decision making and performance across the regulator, companies, the Government and other stakeholders.

## 5. Summary and conclusions

The goal of this paper has been to consider what role the concept of public value might have in the regulation of investor-owned regulated network utilities. This issue has acquired greater salience in the light of a broader recent debate about the purposes of business. Another motivation has been the development of the concept of public value to derive management strategies in the public sector. This contains strong elements of 'activism', discovery and innovation.

In network utilities in the UK, the pursuit of public value is grafted onto large 'private value' monetary transactions between buyers and sellers, mediated by price controls, at first largely put in place to control the effects on consumers of excessive pricing, then extended into the wider sphere of quality of service, and environmental and distributional objectives. These interventions have been subject to top-down social cost-benefit analysis.

We have concluded that this system leaves unaddressed a substantial number of more granular projects capable of generating public value. Given the existing institutional framework, these require a decentralized solution, led by companies which are better placed than regulators to understand their communities and environments, to discover public value opportunities, and, together with their communities, to identify how best to deliver them. Thus, decentralization to firms offers the possibility of a more ‘activist’ approach and wider interrogation and participation of the public. This more open approach also offers additional opportunities for innovation.

An investor-owned business, faced with this responsibility, will first and foremost identify situations where it gets a suitable reward, via a regulatory incentive or as the result of identifying a win-win opportunity. A decentralized process can generate net benefits of this kind. The benefit to customers and citizens is enhanced if the firm is willing to make a profit sacrifice by covering some of the costs.

Decentralization of public value discovery and delivery to regulated firms introduces an agency problem. This can be addressed either by alignment of objectives between the regulator and provider and/or by the regulator introducing ‘private value’ incentives for the regulatee. Indeed, for full success of a decentralized – and activist – approach, alignment across the piece, embracing customers, investors and third party stakeholders, is likely to be necessary.

To illuminate our discussion, we have looked at developments in regulation for public value in the England and Wales water and sewerage industry. There the environmental, social and economic regulatory frameworks have been moving to a more decentralized ethos. Environmental legal requirements are increasingly set at higher level, firms being tasked with doing the social CBA, and the regulator urging firms to look to delivery of broader goals beyond the ‘statutory minimum’. This has dovetailed with a more outcomes-based approach of economic regulation, where firms have been required to define their own outcomes – covering service, environmental, social and community, and delivery targets. This regulatory decentralization has gone hand in hand with greater public participation through consultation processes – steps on the way to the ‘activism’ believed to be crucial to the pursuit and achievement of public value objectives.

What has been the impact? While these regulatory changes were already in train for the recent price review, the explicit ‘public value’ focus of regulation (and commitments made by companies in their purpose statements), was introduced only at a late stage of the review. Although none of the business plans were viewed by Ofwat as consistently ‘outstanding’, and Ofwat considers some companies have ‘much distance to travel’, many were highly commended on specific aspects of their plans, and a handful of companies were rewarded by the regulator with ‘fast-track’ status.

The substantial effort put into customer engagement by firms has been largely commended by Ofwat; but while many have adopted best practice and innovative techniques, others have been found wanting. Firms have made greater commitments to supporting the vulnerable, and have elicited their customers' assent to certain extensions of social pricing with its underlying cross-subsidy. Some have promised limited shareholder contributions towards such schemes. Environmental commitments have been extensive and reached into new areas. However, these environmental improvements appear to be entirely funded by customers, with little additional voluntary contribution from investors, and Ofwat feels that overall the extent of innovative catchment and/or nature-based solutions as yet 'only scratches the surface'.

There have also been scattered initial signs of companies' willingness to hand back to customers excess profits due to factors outside their control, or to contribute a (usually modest) share of excess profits to customers. These voluntary contributions arise in a context where there is public dissatisfaction with the imbalance between shareholder and customer benefits, given the long and continuing history of companies' financial outperformance.

Finally we offer some thoughts on the future challenges and opportunities for a public value-led approach to network utility regulation.

There are inevitable difficulties in implementing the proposed decentralized approach to identifying and delivering a public value agenda. Thus in water, as acknowledged by Ofwat and the companies, there are likely to remain barriers in the form of rigid, risk-averse or complex environmental or other regulations. Incentive mechanisms may need adaptation in order to promote innovation and minimise scope for abuse or unintended consequences. And even in the event of 'better regulation', there may remain cultural barriers within firms.

A particular challenge lies in grasping the full implications of 'activism' in engaging the public. It is not clear that the diversity of public interests is always represented adequately by the 'public as customers'. It is a challenge to find a way in which this wider public can best participate in the process of uncovering and delivering value. This goes to the heart of the question of how a decentralized approach can engage sufficient 'activism' by the public – to go beyond simply eliciting views, and gain endorsement via a form of democratic accountability. Such accountability in a regulated sector presents challenges as great as those found in the provision of public services.

This may suggest both new forms of partnership involving the public in different ways, and perhaps a resurrection of ideas around citizens' juries, negotiated settlements and the like, to forge new ways of finding meaningful dialogue, participation and consensus around public value. The information generated in this process should be made as transparent as possible, and not the preserve of the companies alone.

If these obstacles can be overcome, establishing public value as a purpose might confer significant benefits by projecting the companies into ‘discovery’ mode – by establishing effective mechanisms to answer the fundamental challenge of finding out what it is that the public values, by critically reviewing their own culture, and by introducing innovations which generate public value. If this occurred, the regulatory framework and the incentives underlying it might become less prescriptive and intrusive and more supportive. In some cases the companies may be responding to monetary incentives; in others they may not.

But, crucially there is little certainty about how far and how uniformly investor-owned firms will try or be able to cope with multiple agendas, as compared with having a singular focus. With regulated monopolies, the usual concerns arise: that information asymmetry may promote investor-led rent-seeking, and firms may capture the process of consumer and citizen engagement. There is also scope for the reverse situation: that firms discharging public value obligations might find themselves captured by powerful, possibly single-issue, customers’ or citizens’ groups. This is in addition to the special consideration which must be given to how well regulated companies succeed in pursuing public value across company service boundaries.

At this early stage the jury is still out over whether the incorporation of a public value objective in network utility regulation will have a substantive rather than a tokenistic character. But given its potential benefits to the public interest, it looks worth further investigation, as it offers several useful avenues for companies, regulators and other stakeholders to explore.

## Appendix 1: the impact of ESG investment on the pursuit of public value

ESG investment funds define themselves by making portfolio choices in part on non-financial grounds based on one or more of three attributes of the relevant companies – environmental, social and governance. In doing so, they are acting on behalf of the investors whose wealth (in the form of financial resources, pension entitlements or otherwise) they allocate, although principal-agent problems may arise in this relationship Erdman 2000: ch. 6). The attributes in question can be illustrated as follows:

Factor	Examples of issues which relate to this factor
<p>Environmental</p> <p>The direct or indirect impact of a company's activities upon the environment or natural world</p>	<p>CO<sub>2</sub> emission  Waste management  Water consumption  Use of renewable technologies  Efficiency</p>
<p>Social</p> <p>Impacts on stakeholders such as customers and employees as well as society at large</p>	<p>Customer satisfaction  Data protection and privacy  Gender and diversity  Employee engagement  Community relations  Human rights  Labour standards</p>
<p>Governance</p> <p>The way the company is managed and controlled, and conducts day to day business</p>	<p>Board composition and diversity  Audit committee structure  Bribery and corruption standards  Executive compensation  Lobbying  Political contributions  Whistle-blower schemes</p>

Scoring systems have emerged which rate stocks against one or all of these criteria. Thus the Danish energy company known as Orsted (formerly Dong), which sold off its fossil fuel and carbon-generating activities and became the

world's leading 'pure play' investor in the offshore wind industry, is likely to be a good performer. An auxiliary industry has been established to rate companies on their ESG qualifications, though little consistency in ratings has been found across suppliers of these services (Berg et al. 2019).

According to estimates, a large and growing share (maybe 30% at the end of 2019) of actively managed funds employed some ESG criteria to choose the investments they made.

What impact are ESG funds having? There are at least three (not mutually exclusive) possibilities:

- Hypothesis 1: for altruistic reasons, some investors are willing to make a profit sacrifice in order to support their personal non-financial goals, by putting money into ESG funds. Hart and Zingales (2017) suggest that in such a situation, the goal of shareholder value maximization can properly be replaced by shareholder welfare maximization. This reduces the cost of capital to the relevant companies or sectors. In the case of regulated industries, this sets up a sequence of events which may have the effect of (a) reducing prices to end-users via price controls, and/or (b) expanding or skewing towards ESG purposes patterns of expenditure in the benefitting companies.
- Hypothesis 2: in this case, the investors' motives are purely financial. They recognize that changes in social attitudes (for example, towards mistreatment of employees), or physical circumstances (the climate emergency), or other goals (greater diversity of decision takers), are imposing or will impose additional risks on companies. These risks may include being taken into public ownership, becoming liable for environmental or other damages, or becoming an object of public revulsion. They seek to invest in companies or funds which take account of these risks, that are not yet universally acknowledged. In a variant of this financial motivation approach, investors may regard managements of companies which recognize these risk and guard against them as generally more astute than those who fail to do so, across the whole set of management competences. Taking these risk-reducing steps is thus a signifier of greater management expertise.

Both of these interpretations of hypothesis 2 assume that all investors seek financial benefits only, but fall into two shifting categories – 'informed' and 'uninformed'. The former apprehends that pursuing (a 'subset' of) ESG goals enhances long-term shareholder value. They therefore supply capital preferentially to companies following these policies, and are rewarded accordingly. Those not doing so do not benefit in this way. In a regulated sector, the benefit to the investor in a 'superior' firm is likely to arise from its capacity to outperform its peers in the general productivity/efficiency stakes, and be rewarded for it by a



system of ‘comparative competition’. If the regulator adopts (for different reasons), and rewards the same public value goals as ESG investors seek out, the advantage of those investors over their non-ESG counterparts is further enhanced.

- Hypothesis 3: here the spotlight falls on managers. Managers of companies which are more successful than their rivals may have more discretionary expenditure at their disposal. Driven by altruistic motives or a desire to gain esteem, they may expend some of these resources on ESG goals. Rivals which are more strapped for cash may be unable to follow suit.

At stake here are questions both of motive and of the direction of causation. What do the data show, in relation to these hypotheses? A thorough but now somewhat dated review of the literature on this problem of discrimination of hypotheses concluded that:

Most notably, environmental and social, rather than governance, factors appear to add value, not just through lower firm-level risk but also through lower cost of capital, with roughly similar findings holding for firm value. In this relationship, however, the literature has identified managerial agency problems that may attenuate the effect. Finally, while improvements in governance do not seem to directly influence firm value..., they may still do so through their positive impact on environmental performance (Saidi 2014: 44–45)

It is also possible to survey users of ESG data in relation to their motives for doing so. One multi-country survey of senior investment professionals from mainstream investment organizations reached the following conclusions:

We also document that the vast majority of investors are motivated by financial reasons rather than ethical reasons in using ESG data. The majority of the respondents suggests that ESG information is material to investment performance. However, which information is material likely varies systematically across countries (e.g. a country where water pollution is a more serious issue versus a country where corruption is a more serious issue), industries (e.g. an industry affected dramatically by climate change versus an industry affected by violations of human rights in the supply chain) and even firm strategies (e.g. firms that follow differentiation versus a low-price strategy). ... Understanding how the materiality of ESG information varies across countries, industries and firm strategies therefore is of primary importance. Finally, a large number of investors use ESG information because of client demand or as part of their product development process (Amel-Zadeh and Serafeim 2018)

An imperfect way of discriminating between the first two hypotheses is to examine the comparative returns of ESG and non-ESG investments. It can only be partial because an investor might choose a portfolio on altruistic grounds (behaving as in hypothesis 1), but constantly be pleasantly surprised by the returns which it delivers (hypothesis 2). Over time, however, we might expect the surprise to wear off.

There is some, but not conclusive evidence, that ESG factors help investors to outperform. Factor Investing is a type of investing which seeks to outperform the broader stock market index by selecting stocks that score higher on that particular factor. Many factors have been identified which, judged against historic data, appear to give outperformance against an index. The most prominent include small size, value (vs growth), recent price momentum, low volatility, quality.

As noted in the formulation of hypothesis 2, there is much debate whether high ESG is a genuine factor conveying the ability to outperform, or simply ‘quality’ in another guise. Quality stocks are generally defined by financial characteristics such as having high and stable profit margins. However, taking account of hypothesis 3, the direction of causation is unclear. It may be that such companies, by virtue of the strength of their market positions and their business model, can afford to behave in a more socially responsible manner. Thus, a utility operating in monopolistic markets may have a greater ability to pass on the higher costs of achieving a high ESG score to its customers, while one which operates in a competitive market cannot.

In summary, there remains much to do to disentangle the effects of ESG investment on public value. At present the demand side (investors’ desire for ESG funds) is growing fast, as is the supply side (firms’ claims to support wider objectives). We may soon know more.

Finally, it might help to indicate the depth and granularity of research now going on into firms’ ESG-relevant characteristics. An anonymized research report recently characterized the claims of two such companies in the same sector as follows:

X’s pledge to ensure net zero emissions, 100% energy from renewable sources, and 100% electric fleet by 20xx is a key component of its ESG offering, whilst the company is highly ranked for employer social mobility, employee diversity, LGBT rights and gender pay. X is a strong contender amongst utility companies, with only a small number of injurious incidents preventing them from ranking higher.

Y set xx measures and targets relating to corporate responsibility, whilst the business continues to benchmark its performance against key ESG indices, disclosing performance on its website and scoring strongly across the board. Furthermore, Y scores strongly in employee

support and supporting the local community, whilst injurious incidents are arguably the area which goes against it, relative to sector darlings.

## Appendix 2: current environmental regulation in the England and Wales water sector

Post privatisation, environmental investment fell largely into our ‘centralized’ category, as key pieces of early legislation (for example, the Urban Waste Water Treatment Directive) were highly prescriptive, detailing standards of treatment and even processes. Over time, new policies and legislation (at EU and national level) with wider scope have been introduced, for instance, relating to river water quality, biodiversity, flooding and resilience. The EU’s Water Framework Directive (WFD) which at PR19 was a dominant driver of investment (its aim being to improve river water quality), requires that companies use CBA to determine standards and allows for questions of affordability to be taken into account.

Water companies have been active players alongside, in England, the Environment Agency (EA) and other stakeholders in determining the requirements on the sector to address environmental problems, for example, relating to river water quality improvements. Regulatory oversight, guidance and approval of plans have been central to the process, with increasing alignment of approach between the environmental and economic regulators.

Thus, at PR19 the allowed environmental investment in water companies’ price limits of some £5 billion is, according to Ofwat, almost entirely to meet requirements agreed with the EA to fulfil Government objectives, as set out in the Water Industry National Environment Programme (WINEP). This details the projects and outputs needed to meet the statutory and non-statutory drivers set out by the EA with Natural England in a detailed guidance document, the Water Industry Strategic Environmental Requirements (WISER).

The WISER indicates a gradation of decentralization:

- (1) Statutory requirements give little scope for companies to be creative, with standards and / or processes required explicit;
- (2) Statutory Plus requirements – expect water companies, using CBA and taking account of affordability, to propose the required improvement; and
- (3) Non-statutory is the most decentralized, the WISER guidance (p.14) stating:

5.5.

- 5.6. There may be a public need but this may not be underpinned by a specific Act or piece of legislation. You should demonstrate that there is an environmental requirement and/or customer support and that such investments provide best value for customers over the long term. Effective customer engagement should reveal

whether customers (and which types of customers) want to see further environmental improvements, and over what timescale.

The WISER guidance also specifies best practice, including the use of CBA, drawing on customer participation and valuations, innovation and partnerships, mirroring key principles in Ofwat’s methodology for PR19. It expressly describes the water companies as being ‘the steward and leader of our natural water resource assets and the ecology that depends on them’.

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