

Institution: The University of Warwick
Unit of Assessment: Warwick Business School
Title of case study: Enhancing Competition and Innovation in the UK Water Industry
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Research undertaken at Warwick Business School has led to major impacts upon legislation, regulatory policy and practice in the UK water industry. An independently commissioned review of the sector between March 2008 and April 2009 by Professor Martin Cave proposed significant changes to the regulatory regime that have been widely accepted by the industry and are embodied in a new Bill before Parliament. The review argued that, whilst privatisation of the UK water industry in 1989 brought substantial benefits, levels of competition and innovation in the sector remained low, while bills for business and domestic users had grown more rapidly than was desirable. The recommendations made by Cave had an impact on all stakeholders in the water industry, but especially the government and consumers.</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>Cave's research evaluated and informed developments in policy and practice in regulated, often privatised, industries including water, telecommunications, broadcasting and utilities. Cave (Warwick 2001-2010), led investigations into how competition and innovation might be improved in regulated sectors through better regulation, the water industry in particular. Climate change and rapid population growth will increase the demand for water in the next 30 years, placing a premium on the industry finding new and more efficient ways of allocating, treating and using water and waste water. These pressures pose new challenges for the regulation and management of the water industry in order to ensure that water is efficiently supplied and that the environment is protected.</p> <p>Cave and colleagues have developed a strong track record of expertise in promoting competition in networked industries. Together with Vogelsang (Cave and Vogelsang 2003), he concluded that competition and service could be enhanced through making it easier for new providers to enter the industry. This could be facilitated by allowing new entrants to lease existing facilities rather than investing in new capital equipment. It was also argued that regulators might actively support competition through facilitating low-cost wholesaling of intermediate products and services, in order to encourage resellers to compete with incumbents. Additionally, it was argued that, wherever possible, customers needed to be provided with a wider choice of suppliers. Switching should be made easier through reducing the costs entailed in changing supplier and by improving transparency in pricing.</p> <p>In recognition of this expertise, in April 2008 Cave was commissioned by the Chancellor of the Exchequer, the Secretary of State for the Environment, Food and Rural Affairs (DEFRA) and the Welsh Minister for the Environment, Sustainability and Housing, to carry out an independent review of competition and innovation in the water markets in England and Wales. Key stakeholders in the research process included government departments, the water companies, and private and business consumers.</p> <p>The review highlighted the potential benefits of increased competition and noted the abnormally low level of research and development activity in the sector relative to international comparators. The main recommendations of the review were that competition regimes should be revised, specifically by allowing all business customers above a certain use level to be able to choose their water supplier, by ensuring that the retail divisions of water companies should be made legally independent from their network business, and by allowing more mergers between water companies. The review also suggested that the Environment Agency be given greater powers to facilitate the trading of abstraction licences and that OFWAT should be given a statutory duty to support innovation. The final report was published in 2009.</p>
<p>3. References to the research (indicative maximum of six references)</p> <ol style="list-style-type: none"> 1. Baldwin, R., Cave, M. and Lodge, M. (2012), <i>Understanding Regulation: Theory, Strategy and Practice</i>, Oxford: Oxford University Press. <u>Peer Reviewed Monograph</u> 2. Cave, M. (2009) <i>Independent Review of Competition and Innovation in Water Markets. Final Report</i>. London: Crown Publishing Group.

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3. Cave, M. (2006), 'Encouraging infrastructure investment via the ladder of investment', *Telecommunications Policy*, 30(3–4), 223–237.
4. Erbetta, F. and Cave, M. (2006), 'Regulation and efficiency incentives: Evidence from the England and Wales water and sewerage industry', *Review of Network Economics*, 6(2), 425–452.
5. Cave, M., and Vogelsang, I. (2003) 'How access pricing and entry interact', *Telecommunications Policy*, 27(10–11), 717–727.
6. Cave, M. and Williamson, P. (1996), 'Entry, Competition and Regulation in the UK Telecommunications', *Oxford Review of Economic Policy*. 12, 4: 100-121.

4. Details of the impact (indicative maximum 750 words)

In conducting the review, Cave's research team engaged extensively with water companies, industry regulators and government bodies, and made recommendations for changes to the regulation of the water industry. Cave's recommendations were intended to encourage greater competition in the industry, to improve efficiency in the sector through innovation, and thereby to generate benefits for water companies, customers, taxpayers and the natural environment. Large scale stakeholder engagement by Cave's research team and broad consultation with the water industry's stakeholders (private and business consumers, water companies, and government) overseen by DEFRA, led to the findings and recommendations of the review receiving widespread recognition and acceptance within legislative and regulatory circles. In 2011, a White Paper was published for market reform drawing on Cave's review (<http://www.environment-agency.gov.uk/research/planning/135501.aspx>). The report summarises this: 'Martin Cave recommended a package of changes to increase competition and bring new approaches and new ways of working to the sector. The Water White Paper includes the Government's response to the recommendation in the Review's assessment of the role of OFWAT and consumer representation on the water sector that Government should provide greater clarity to the sector on its plans for the extension of competition. It sets out our plans for reform, building on the strengths of the current industry structure and regulatory regime and reflecting Martin Cave's recommendation that change should be incremental.' In December 2011, DEFRA published a Policy Paper 'Water For Life' that added detail to the White Paper, and explicitly acknowledged the latter's debt to Cave's report (<https://www.gov.uk/government/publications/water-for-life-market-reform-proposals>).

This culminated in the New Water Bill being published in parliament in June 2013. Cave's recommendations to allow for greater development of the water supply licensing market, by allowing all business and other non-household customers in England that use more than 5 million litres annually, to switch their water and sewerage suppliers. This will bring around a further 24,000 eligible customers into the market, increasing competition and encouraging entry of new providers. Other significant developments to the regulatory regime made in response to the review include revisions to the licensing regime in order to allow firms which serve only part of the water services value chain (for example: retail, the supply of raw or treated water to customers, waste or sewerage services) to enter the market. This will considerably increase competition at some points in the supply chain.

Cave's review proposed significant changes to the roles, responsibilities and activities of OFWAT and knock-on effects to related regulatory bodies (e.g. the Drinking Water Inspectorate). The review further proposed measures to place water abstraction on a more sustainable footing. This is reflected in the new legislation through changing the way in which water company schemes aimed at placing abstraction on a sustainable footing are funded. The developments to the competitive regime proposed in Cave's research have been adopted in the new Bill and will affect the competitive opportunities, investments, and strategies of providers of water and sewerage services.

Although Cave's review has already led to new legislation being tabled, because investment horizons and infrastructure developments are long-lived in the water sector, direct impacts on consumers (both businesses and individuals), and taxpayers will occur gradually. Nonetheless, the evidence suggests that opening up the water market and allowing businesses to switch supplier could deliver benefits to the economy of £2 billion over 30 years. In Scotland, after similar reforms were introduced, the public sector alone is set to save around £20 million over the next three

years.

Improvements in the efficiency of the water sector stemming from increased competition and changes to abstraction licensing proposed by Cave's review will bring about significant environmental benefits. The new environmental permitting regime has been extended from prevention of pollution to include abstraction and impounding licences, flood defence consents and fish pass approvals. This will reduce red tape by allowing businesses to apply for just one permit covering these and a range of other activities.

5. Sources to corroborate the impact (indicative maximum of 10 references)

Evidence of impacts on UK regulatory framework

1. **HM Government. Draft Water Bill, July 2012 (Cm 8375).** The draft bill states: "Martin Cave's Independent Review of Competition and Innovation in Water Markets recommended that change should be evolutionary and introduced step by step. The Water White Paper set out the Government's plans for such an evolutionary reform"; and outlines a series of policies for consultation that mirror those of the Cave Review recommendations. Online, available at: www.official-documents.gov.uk/document/cm83/8375/8375.pdf
- Final Water Bill (2013)** (see also): <http://www.publications.parliament.uk/pa/bills/cbill/2013-2014/0082/14082.pdf>
2. **Department for Environment, Food and Rural Affairs (Defra): Water for Life - Market reform proposals (policy paper) (December 2011).** The report states that "the case for reform of the water industry to develop a more vibrant and competitive market was set out in Professor Martin Cave's report to Government. The Water White Paper includes the Government's response to the recommendation [and] sets out our plans for reform, building on the strengths of the current industry structure and regulatory regime" (p.2). Online, available at: <https://www.gov.uk/government/publications/water-for-life-market-reform-proposals>
3. **House of Commons Environment Food and Rural Affairs Committee. The Water White Paper Second Report of Session 2012–13.** The minutes of the committee note that "the whole ethos of the proposals in the White Paper is around moving cautiously with competition and increasing the use of markets, and that is very much in line with the recommendation from Professor Cave, whose independent review sparked the proposals in the White Paper". Online, available at: <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenvfru/374/374.pdf>
4. **The Water Supply (Amendment to the Threshold Requirement) Regulations 2011.** One specific example of the impact of the research relates to increasing the size of the market opportunity for potential entrants by lowering the threshold volume at which buyers are eligible to tender competitively for the supply of water services to 5 mega litres. Online, available at: <http://www.legislation.gov.uk/uksi/2011/3014/resources>

Evidence of impacts on regulatory roles and practices of OFWAT

5. **Chief Economist, OFWAT** Letter provides evidence testifying of the significant impact of Professor Cave's research on OFWAT and has influenced a number of their activities in changing the ex-ante regulatory framework. The letter also corroborates the research impact in shaping UK Government legislation. "...the Government's impact assessments on upstream and retail competition supporting its White Paper and draft legislative proposals drew heavily on the [Cave] review in setting out the relevant benefits".

Evidence of impacts on perspectives, strategies and investments of UK water companies

6. **Director, Strategy and Regulation, Severn Trent** Evidence in the form of an email confirms research impact on the internal perspective and thinking of a water company. "...The one area where our and other companies' thinking has shifted is in relation to retail competition where our and other companies' activities have stepped up in anticipation of new legislation. Overall I think the Cave review has been one of the most influential pieces of work in terms of facilitating sector reform since privatisation".
7. **Policy Exchange Report: Water Retail Services Competition in England and Wales (July 2011).** This independent review of the state of competition in the water industry notes the significant benefits potentially stemming from the Cave Review proposals. For example, in

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relation to the benefits to a specific retailer, the report notes that: “Ability for multi-site customers to contract with one or two national retail services suppliers, reducing numbers of bills and administration costs, and improving comparability of consumption information. For example, reducing one customer’s 4,000 paper bills each year to a national electronic bill could save perhaps £80,000-£200,000 for that customer alone”(p.2-3). More generally, the report suggests that “A number of analyses of the costs and benefits of the Cave review’s proposals have been undertaken by different organisations. All of the cost-benefit analyses point in the same direction, indicating substantial net benefits, ranging from £600 million to £2.5 billion net present value (NPV)” (p.4). Online, available at:
<http://www.policyexchange.org.uk/publications/category/item/water-retail-services-competition-in-england-and-wales-still-hobson-s-choice>