23 November 2012 European Equity Research

Response to Ofwat Licence Modification

The Regulator has decided that the introduction of competition into the water sector is an appropriate way to encourage innovation in the light of a rising population and climate change. The introduction of well planned competition could, in our view, lead to cheaper long-run solutions. However, we believe that the proposals themselves, coupled with the way in which they have been handled, are detrimental to the UK water industry, consumers and to the UK infrastructure industry as a whole.

We have identified ten key concerns which we believe are relevant to all utility stakeholders. At best Ofwat has introduced uncertainty into a sector whose shareholders have provided a low cost of capital through a low risk perception. At worst we see bills rising 15% for consumers as the cost of capital increases as well as contagion into other sectors requiring Government backed certainty, such as Energy Policy and Transport.

- **Retail division to be regulated in a two-tier process –** The non-contestable retail division will drive for the cheapest solution for customers whilst wholesale will essentially provide infrastructure. Retail competition for larger customers will come into play from 2015. Whilst we have concerns over the regulatory process in retail, we see having retail competition for larger customers as potentially positive for investors in water companies.

- **Upstream changes to competition will affect profound change** – It is the changes in the wholesale division which we see having the most profound impact. We have long struggled to see how Ofwat can implement a price signal to drive behavioural change without changing the economic value of regulated assets.

- **Ofwat has asked for water companies to accept licence modifications in order to ensure no Competition Commission referral before the 2015 Price Review** – These licence modifications include the ability for Ofwat to remove 10% of the Water Industry's RCV on a modern equivalent asset basis to allow competition. Without clarity this could be up to nearly 50% of RCV. This is clearly a radical request. It could lead to a change in the fundamental grandfathering rights, decreases trust in regulators and will increase risk premium in the water and other industries. On our estimates, we see an NPV cost of £7.7bn for consumers, a c.6% rise in bills.

- **We see significant uncertainties and further clarity is needed** – The original Ofwat document on licence modification has been followed up with a clarification document. We believe these two documents still do not provide enough detail for investors. They are detrimental for investors seeking to determine risk.

- **We see 10 reasons why these proposals have serious negative ramifications to the water and the general infrastructure industry** – We believe that other stakeholders will share our conclusions and as such we believe these proposals will be referred to the Competition Commission. This referral will add uncertainty to UK water stocks for the immediate future, and could have impact an on investors in other UK infrastructure.

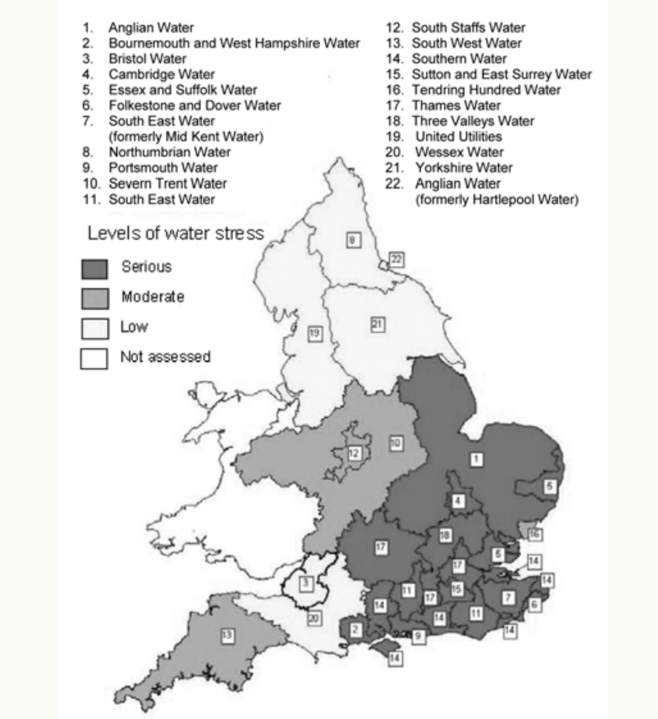
Dominic Nash
+44 (0)20 3100 2088
dominic.nash@liberumcapital.com

Guillaume Redgwell
+44 (0)20 3100 2195
guillaume.redgwell@liberumcapital.com

Ofwat's Proposals: why, when and how much?

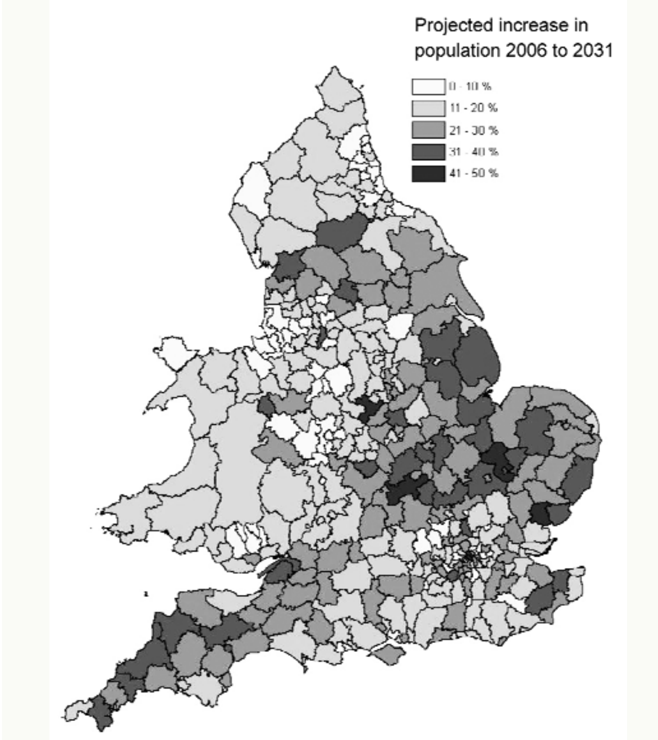
Ofwat believes that some real World concerns are driving its policy decisions. Namely that a growing population coupled with climate change could lead to water shortages in the south and east of the country, with the north and west having abundant resources of water.

Figure 1: UK Water Stress highest in South and East



Source: DEFRA, Ofwat

Figure 2: Further population growth to add to stress



Source: DEFRA, Ofwat

There have been two major reviews (The Walker Report and the Cave Report) into the introduction of water re-regulation and a water White Paper was published in 2011. A brief summary of these two reports is outlined below:

The Walker Report

Anna Walker, Chair of the Office of Rail Regulation led an independent review of charging for household water and sewerage services. This was published in December 2009. The key conclusions are summarised below:

- A report was commissioned into water charging tariff modelling, in order to have quantitative analysis of the effects of current and future alternative tariff arrangements on household water bills.
- Whilst the regulatory regime in the water industry has served customers well over the last 20 years it faces considerable challenges. A charging system can play an important role in overcoming these hurdles.
- It is very important that the charging system should incentivise the efficient use of water.
- Water also needs to be affordable, particularly to those on low incomes.

- EU's Water Framework Directive calls for water to have an economic value equivalent. This requires member states to use water resources efficiently by 2010 and that the price charged to water customers reflects the true costs.

The Cave Report
In April 2009, Professor Martin Cave submitted an independent review of competition and innovation in the England and Wales water sector to the Chancellor of the Exchequer and the Secretary of State for the Environment, Farming and Rural Affairs. This review focused on whether the structure and regulation of the water sector were adequate to the new challenges facing the industry. These challenges were population change and climate change.

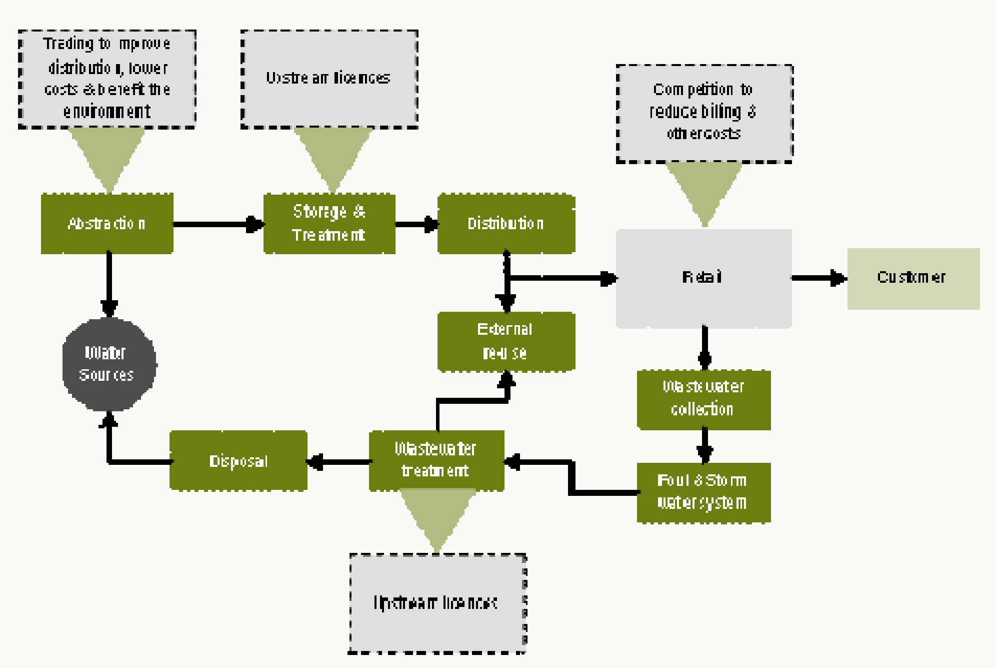
A number of proposals were recommended:

- A gradual insertion of market-like mechanisms and competitive forces in the sector – but only in a measured way to maintain investors' confidence and avoid an increase in the cost of capital.
- Downstream: the introduction of competing retailers to give business customers the choice of supplier.
- Upstream: greater rationality in the manner in which abstraction rights are allocated and water traded.
- It should be introduced gradually and regulation must adapt to the new challenges following the current price review (2015).
- There should be the potential for mergers and acquisitions in the water industry.
- Further research and development capability.

Water White Paper December 2011
Proposals focused on two major areas:

1) Competition in retail:
- The proposal will apply to businesses and public sector bodies for water and sewerage. There will be no requirement for a legal separation of retail operations of the water companies. Initially the threshold will be brought down to customers using 5mn litres per annum with a future intention to remove this limit all together for non-household customers.
- New entrants will be encouraged and as part of this there is the intention to move away from the costs principle and towards a transparent wholesale access pricing regime. With the combined Scottish system, we would expect companies could look at getting a licence in Scotland beforehand in anticipation of the opening up of the UK market as a whole.

Competition in water and sewerage value chain

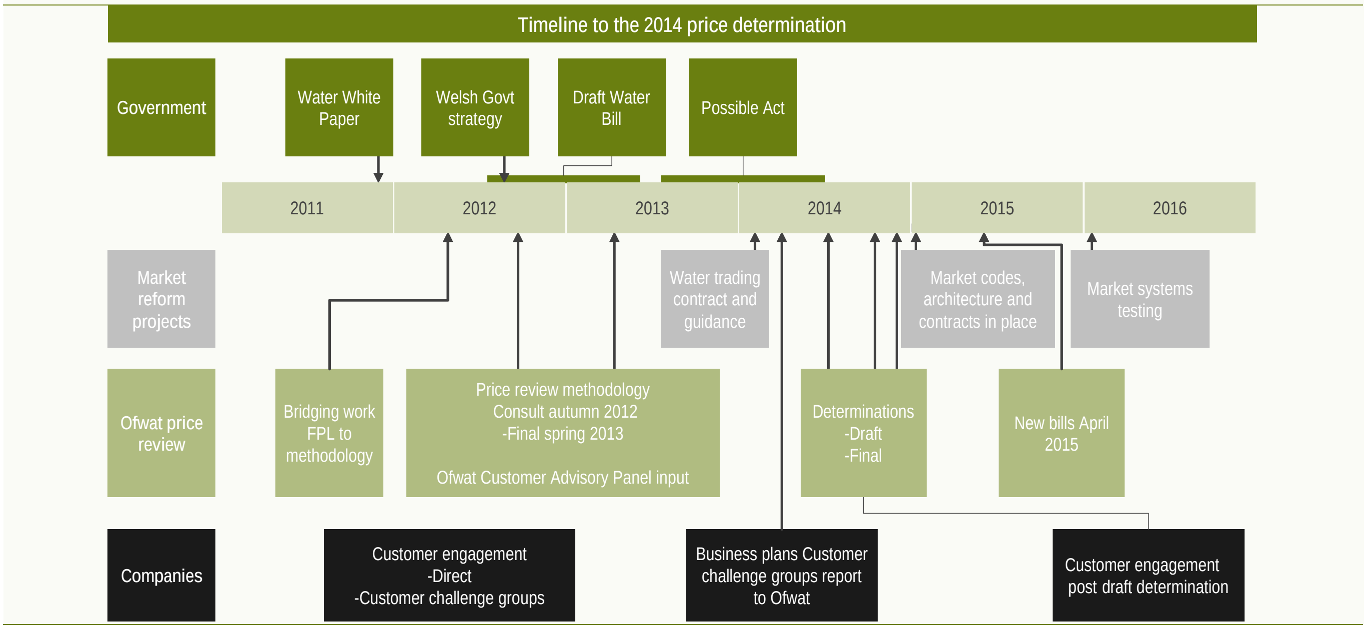


Source: Defra

2) Trading of water:

- The second major area is the reform of the abstraction regime. This would include the eventual implementation of water abstraction trading rights as well as increased interconnection in the water system. There will be a consultation in 2013 with an aim to legislate in the next parliament.
- For the moment the government has only set out goals for the design of the regime, including taking account of current abstraction licences. Furthermore they have said that they will move to the new regime in stages meaning that it should be in place by the mid to late 2020s.

Figure 3: UK Water – timeline to 2014 price determination



Source: Ofwat

What are the economic benefits? The Cave Report estimates £2.5bn NPV over 30 years

Initial analysis by Professor Cave shows that the potential NPV savings over 30 years to consumers could be in the order of £2.5bn, broken down as follows:

- Purchasing obligations: £1.3bn
- Reform to Water Supply Licensing regime: £400mn
- Inset modernisation: £300mn
- Retail competition: £600mn

However, Cave also thought that benefits could be far greater than this £2.5bn. Upstream NPV benefits could rise to £5.3bn from £1.3bn if all recommendations are adopted.

Severn Trent and the Scottish Regulator believe NPV benefit even greater than Cave report

According to Severn Trent Water, total capital expenditure could be £1bn lower per annum with the adoption of the Cave review and operating costs could be 15% lower then current projections. This would lead to customer bills being 11% lower by 2030 if the Cave Report was adopted than if no action was taken. Total price increases would therefore be halved over the business as usual scenario.

As an example Severn Trent talk about transferring water from Wales to the Thames River. Severn Trent believe that their reservoirs in Wales could provide water into the Thames basin cheaper than desalination in London or reservoirs in Oxfordshire. Whilst the water that would have been used to supply Merseyside from these Welsh reservoirs could come from the Lake District. It is almost certain that northern/western water companies could provide water to the south at a fraction of the cost of building new facilities in the south.

If Severn Trent could provide water to the Thames at £0.5/m3, then the annual benefit to Thames with a volume of 100mn m3/year would be £50mn/year. If 20% of these savings were kept by shareholders (80% given to customers) then the NPV would be £100mn. This is certainly an area in which there could be material savings and where both customers (through lower investments) and shareholders (through retention of cost savings) benefit.

The Scottish Water Regulator believes that Scotland has benefitted to a level of £300mn since the introduction of water competition, and Alan Sutherland believes that the total NPV could be 'a magnitude higher in England and Wales'.

Ofwat's proposals – City Briefings and documentation

In 2011 and 2012 Ofwat went a long way to alleviating investor concerns by conceding that there would be no RCV cut – any RCV put into segments will be ring-fenced. This principle is still being followed in this licence modification. However Ofwat are retaining the right to place an undisclosed level of the RCV into other regulated activities outside of the Wholesale division.

Licence modifications – our interpretation of what Ofwat has proposed:

The 'Consultation on Ofwat's section 13 proposals to modify company licences' was released on 26th October.

One of our first conclusions from this report is the ambiguity and uncertainty of the proposals. We have been discussing with a number of investors who have been in the industry for two decades who are still unsure what the document meant. The following is our interpretation following both reading the document and a discussion with Ofwat:

1) The water and wastewater business is to be split into two – retail and wholesale.

2) Retail will have two components, a regulated non-contestable (which will be regulated on an average cost of serve basis) and a contestable portion which will be competitive.

3) Wholesale will start with two regulated assets, water and wastewater. The RCV of these two assets will be the current combined RCV.

4) Ofwat want the right at a future date to be able to set new price controls on other portions of the Wholesale division, e.g. if Ofwat wanted to put upstream and sludge treatment into a new RCV based price-control regulatory review they could do so. The water companies have the right to appeal this to the CC.

5) Ofwat will have the right to re-allocate RCV and revenues between these price control segments and the water companies can only appeal this to the CC at the next water review period.

6) Ofwat wants the right to re-allocate assets out of these price controls into alternative non-wholesale regulated activities.

    a) The maximum revenue that can be re-allocated is 20% per review and 40% in total.

    b) This revenue threshold is based on the price control revenue, i.e. a building block basis.

   c) The assets to be transferred out of Wholesale are estimated to be no more than 10% of total value based on a MEA basis.

   d) There is still uncertainty how the asset value transfer will be calculated. The MEA of a water company is 4-5x RCV, so the asset value could be transferred at between zero (unlikely) and 5x RCV. Therefore the ‘loss’ in headline RCV could be potentially up to 50% of RCV. If transferred at RCV, the profit transferred out of RCV is c.10% (give or take out/under performance).

   e) Ofwat believe that this transfer of assets will only be into another regulated entity, in which an RPI-based RCV-backed building block may, or may not, be appropriate. However, Ofwat has a regulatory duty to ensure financeability of the entire water company. As such, there will be an economic return on this transfer value. Water Companies have the option to appeal to the CC at this stage.

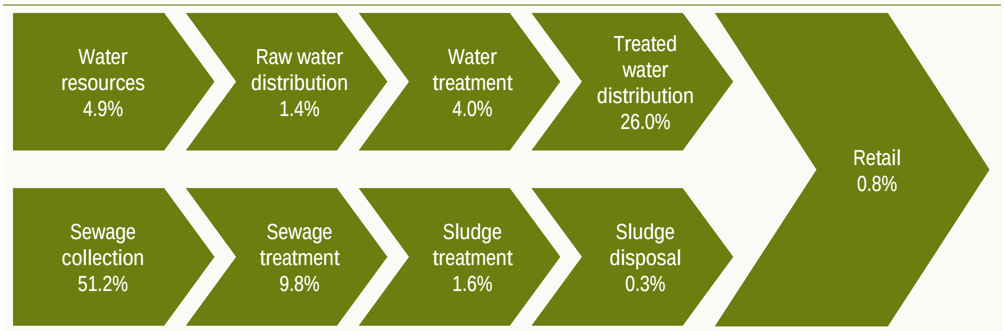
   f) If the economic value has a regulated return, for all intents of purpose it is a pseudo-RCV.

   g) These assets cannot be placed into a competitive environment without primary legislation. Therefore there can be no stranded asset issue until Government debates this issue. Retail goes competitive from 2017 and upstream competition is only after 2020.

   h) Ofwat does not believe non-Wholesale assets can be stranded under current licence proposals or primary legislation.

7) The RCV and/or non-Wholesale RCV will be ring-fenced as at 2015. Any investment between 2015 beyond will be at risk of not being protected and will therefore be viewed with a lot more risk by water companies.

Figure 4: Breakdown of RCV by operation type



Source: Ofwat

Figure 5: The water and sewerage value chain by revenue

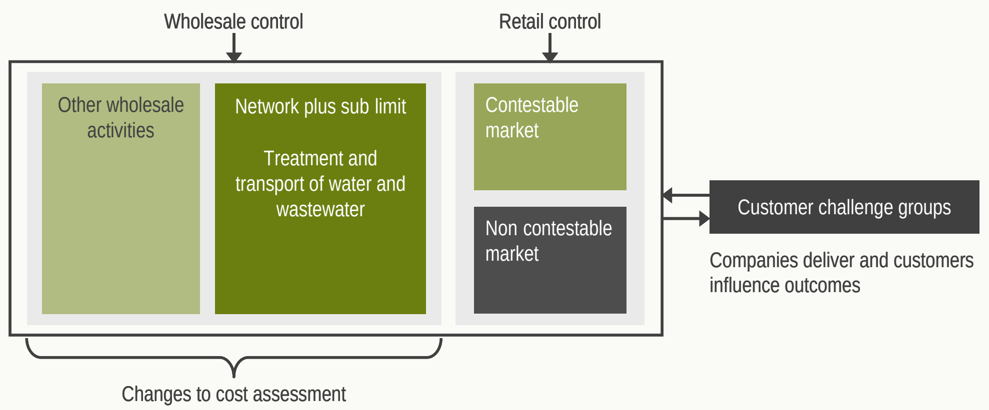
Part of the value chain	% ot total	% of RCV	Estimated MEA basis
Retail	11.0%	0.8%	4.0%
Resources	5.0%	4.9%	24.5%
Raw water distribution	2.0%	1.4%	7.0%
Water treatment	9.0%	4.0%	20.0%
Sewage treatment	16.0%	9.8%	49.0%
Sludge treatment	5.0%	1.6%	8.0%
Sludge disposal	1.0%	0.3%	1.5%
Totals	38.0%	22.0%	110.0%
Treated water distribution	22.0%	26.0%	130.0%
Sewage collection	29.0%	51.2%	256.0%
Totals	51.0%	77.2%	386.0%

Source: Ofwat, Liberum Capital estimates
** MEA basis simply calculated as 5x RCV*

Of chief concern to us and investors are that these proposals have the ability to extract up to 10% of RCV from the water companies in order to allow competition. This 'extraction' is to be undertaken on a Modern Equivalent Asst basis (MEA). Obviously there would be no competition in the water sector if assets were allowed to be extracted at RCV, and found to have a fraction of the cost of alternative assets. The incumbent would have a significant strategic advantage.

This means that in a literal interpretation of Ofwat's Licence modification, as MEA is nearly 4-5x greater than RCV, the regulator is asking the water companies for the ability to extract up to 50% of their asset base.

Figure 6: Breakdown of RCV within a Water Company



Source: Ofwat

Figure 7: RCV and replacement cost

2009/10	RCV £m	Water Replacement Cost £bn	Sewerage Replacement Costs £bn	Total £bn
Severn Trent	6,288	9.95	21.81	31.76
South West	2,538	3.71	4.82	8.53
United Utilities	7,536	16.81	36.26	53.07
Total Industry	45,892	108.34	166.57	274.91

Source: Ofwat

We have 10 key concerns to Ofwat's proposals:

1) The terms are ambiguous and further clarity is needed

We believe the documentation outlining the change in licence modification is unclear. There are three main areas in which investors are seeking further clarity:

- Investors rarely use revenue as a metric to measure profitability or value in utilities, but focus on assets and return metrics. The potential carve out of the RCV of assets based on MEA values provides significant levels of uncertainty, as this MEA could be anything. We feel more comfortable following discussions with the regulator that even if assets are carved out of the RCV, that they will continue to be regulated. As financing is part of Ofwat's legal requirement we believe that the MEA value of these assets will act as a proxy RCV even if in reality they are not. However, we are unsure of this.
- The level of grandfathering is uncertain. It is unclear whether Ofwat will protect the RCV up to 2015 in the event of carving assets out into other price controls outside of Wholesale. If at a later date primary legislation was to open up competition could these assets be stranded?
- What happens between 2015 and 2020 when the RCV is no longer protected? Competition may not happen in the Wholesale segment until the early 2020s and this period between 2015 and the potential introduction of competition provides uncertainty to investors.

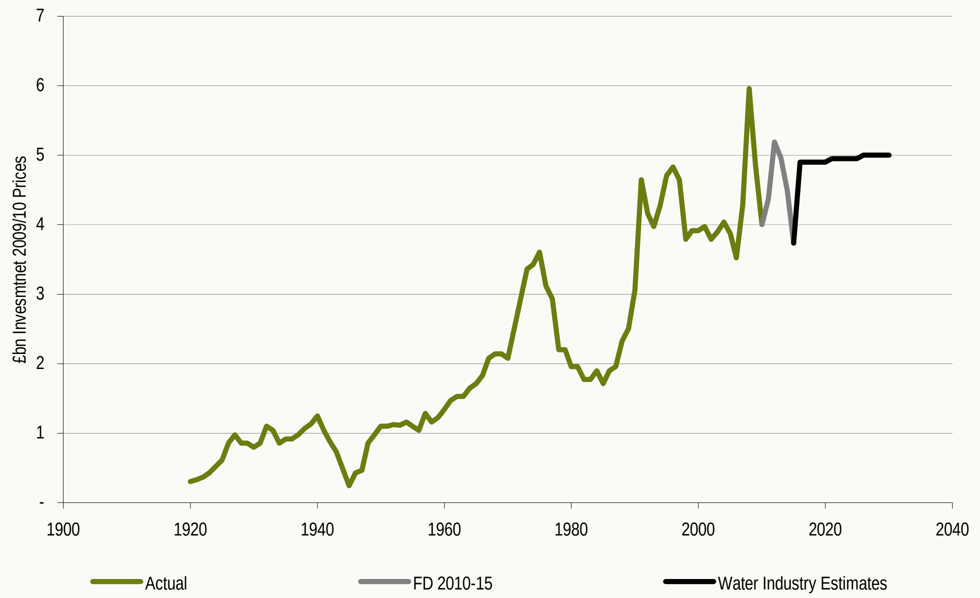
2) The UK has a water sector that has risen to the challenges – if it isn't broken…?

The following three charts and table show: i) the level of investment the UK water sector has put in place since the 1920s, ii) the bills in the UK since privatisation, iii) bills relative to other markets, and iv) the level of water and effluent quality in the UK relative to our peer group.

It can be clearly seen that since privatisation the UK water industry increased investment considerably. Whilst this was ongoing, the quality of service in the UK has increased significantly. At the same time end-user bills have neither increased much in absolute terms nor are they high relative to other countries.

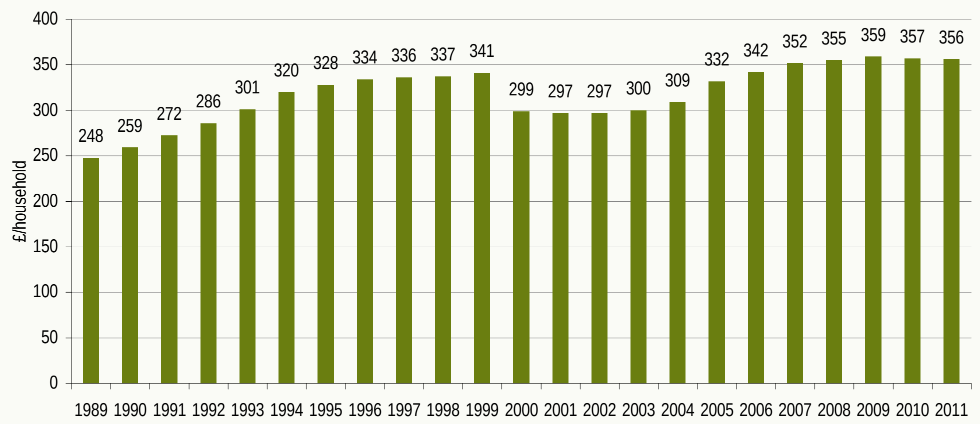
Whilst stakeholders should never 'rest on their laurels', and constant improvements should be sought, we believe that Ofwat is losing sight of the fact that the industry has been perceived as a success story. Radical reform of something that already works brings in risk to something that might not be necessary.

Figure 8: UK water capex



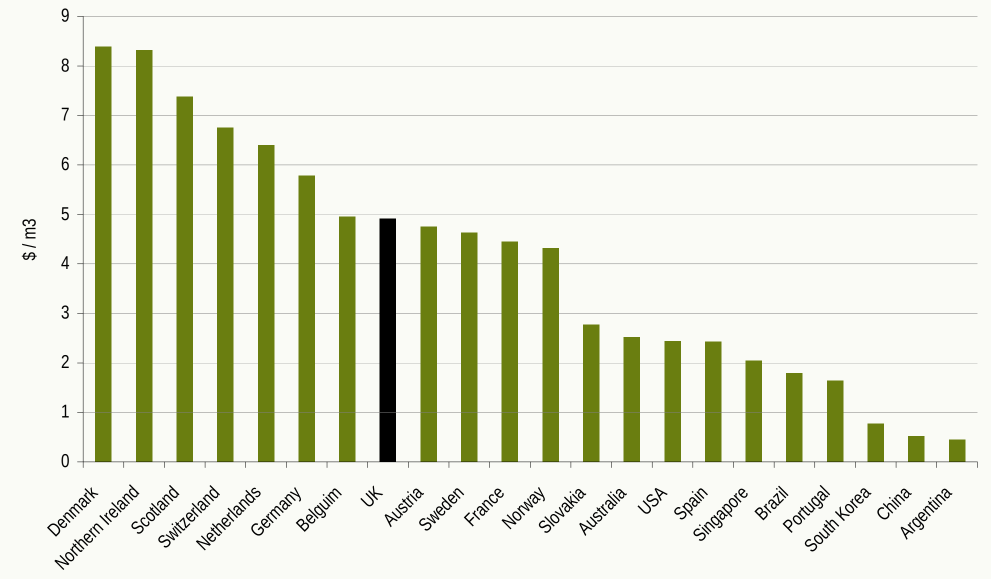
Source: Ofwat, Liberum capital estimates

Figure 9: Historic UK average household water bills (2011-12 prices)



Source: Ofwat

Figure 10: The cost of water and sewerage treatment in the UK is low relative to peer groups



Source: Ofwat

Figure 11: Compliance with EU Bathing Water Directive

Coastal zones

	2003	2004	2005	2006	2007	2008	2009	2010	5- year Average
Greece	100	100	100	100	100	99.5	99.9	100	100
Finland	93	98	97	99	100	98.8	98.8	98.8	99
Spain	98	99	99	99	99	99.4	98.6	94.1	98
Belgium	100	97	95	95	95	100	100	100	98
Germany	98	99	99	98	94	98.7	99.5	99.5	98
Portugal	98	98	98	98	95	98.6	98.6	99.3	98
Netherlands	99	98	100	100	100	100	95.6	92.2	98
UK	99	99	99	100	98	95.5	97.1	96.8	97
Sweden	96	98	98	97	95	97.7	98.1	96.5	97
Ireland	95	98	96	97	97	95.1	93.4	98.4	96
France	96	96	97	96	96	97.2	96.4	89.4	95
EU Total	97	97	96	96	95	95.5	95.6	92.1	95
Denmark	96	97	97	94	93	96.4	94.5	96.1	95
Italy	95	95	94	93	93	92.8	92.2	85.3	91

	2003	2004	2005	2006	2007	2008	2009	2010	5- year Average
Finland	98	99	98	97	97	100	98.4	98.8	98
Sweden	99	98	98	96	96	99.1	99.5	98.6	98
UK	100	100	100	89	100	91.7	100	100	96
Germany	95	95	94	94	92	98.3	98.4	97.2	96
Denmark	97	96	96	96	97	94.5	88.9	100	95
France	94	95	96	95	92	95.1	94.6	95.7	94
Netherlands	99	98	98	97	97	98.6	92.4	84.6	94
Portugal	96	97	96	88	94	92.8	89.7	96	92
Spain	96	95	96	91	87	93.5	93.2	86.4	90
EU Total	92	89	86	89	89	92	89.4	90.2	90
Greece	100	100	100	67	67	100	100	100	87
Ireland	100	100	100	100	100	66.7	88.9	77.8	87
Belgium	84	74	85	84	77	82.9	82.1	79	81
Italy	71	68	65	62	66	65.8	46.4	72.7	63

Source: EC Bathing Water Report, EA, DEFRA

3) Grandfathering rights not respected – a UK precedent

The number one question we receive when speaking to investors is 'what can the Government do to change returns'. This question should not be under-stated. The stock response is that the UK takes grandfathering rights extremely seriously. This proposal undermines the security to investors provided by decades of grandfathering rights.

Grandfathering rights are something that is taken extremely seriously by investors. No matter what happens going forward, if there is an incentive in place to affect the investment situation, and the decision is made to invest based on this knowledge, then these assets should be rewarded as such. One of the reasons that the UK remains an attractive place to invest in infrastructure relative to other parts of the world is the emphasis on ensuring that investments are made in good faith.

Investors have invested in the RCV of water companies in the safe knowledge that the RCV will remain in place. Whilst returns may go up and down, the underlying asset underpins the value. This RCV underpins the capital structure with 55-65% levels of debt. To remove the return structure from a company post-investment will put shock waves through any UK industry in which government-backed returns are needed to ensure investment levels meet the needs of a functioning society.

4) Read across to other industries negative

The UK water industry is not the only industry facing structural investment needs. The following chart summarises the level of investment in the UK power transmission grid in the coming decade. National Grid alone will need to spend £25bn on upgrading the UK's power network. Estimates of the level of investment needed to upgrade the UK's energy infrastructure and provide security of supply and decarbonisation are in the region of £100-150bn.

Our belief is that if investors start to question the willingness of the Government and their regulators to grandfather historic investments, the risk profile rises and finding capital – through a combination of both debt and equity – becomes more difficult and more expensive.

Figure 12: Grid capex spend

Source: Ofgem, Liberum Capital Estimates, National Grid

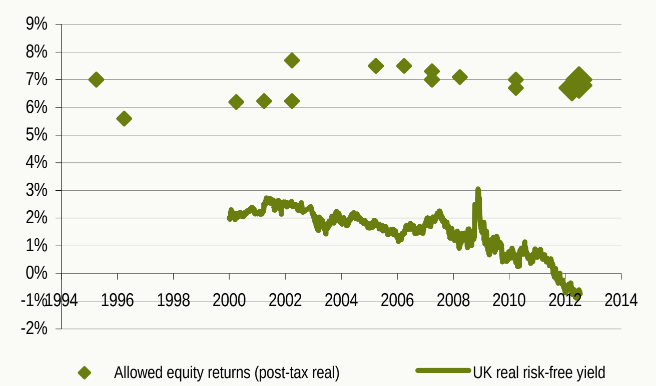
5) Regulatory returns have reached a new low – but this goodwill could be lost

The UK regulated industry has, in our view, had a good 20 years. The following charts show the cost of equity and the overall cost of capital in all utilities since privatisation. Overall the cost of capital has fallen year-on-year. Whilst the return on equity has stayed broadly flat, the level of leverage has increased as the markets have felt more comfortable over the sustainability and consistency of UK regulated returns.

We believe that regulatory goodwill takes a long time to build up, but not a long time to destroy. The 1999 regulatory review of the water industry saw the sector trade at a 10-20% discount to RCV for 6 years. It took a combination of a concerted charm offensive by Philip Fletcher, plus an attractive review in 2004, to see the companies trade above book value in 2005.

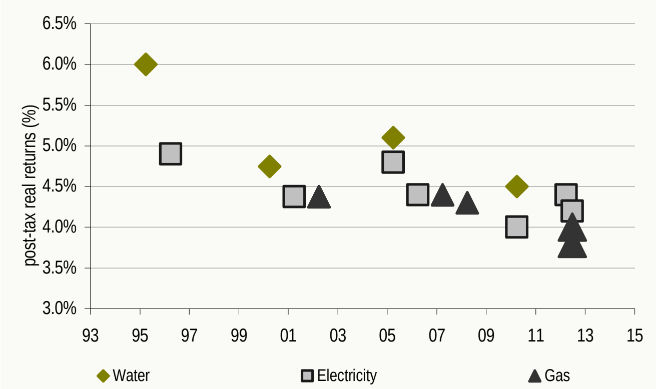
This time round a 6 year discount to RCV would put pressure on financeability and have a detrimental impact on UK energy and transport policy.

Figure 13: Equity returns in UK regulated assets



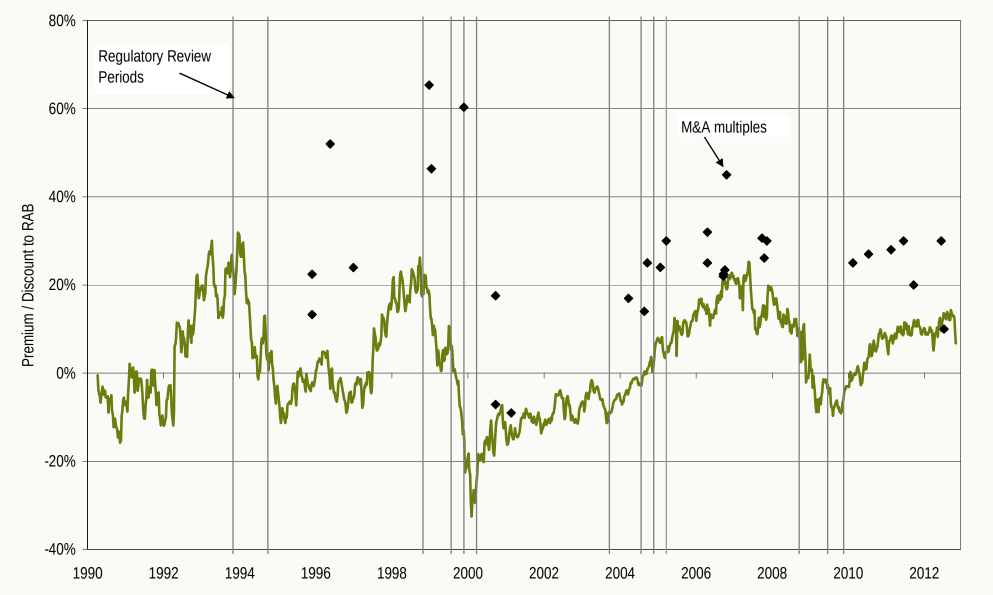
Source: Ofgem, Ofwat, Offer, Ofgas

Figure 14: WACC has fallen since privatisation



Source: Ofgem, Ofwat, Offer, Ofgas

Figure 15: UK water premium and discount to RCV



Source: Liberum Capital Estimates

6) The cost of capital increases with move from regulated to competitive

The following table summarises the discount rate we use on regulated and non-regulated assets in UK utilities. There is a large difference between the two – nearly 2.0% difference in the required post-tax unlevered returns between competitive and regulated assets. Why is this? It is a function of three numbers: the cost of equity, the cost of debt and the level of gearing in the asset. A truly competitive asset, e.g. a merchant power station, will have no debt and a cost of equity with a beta close to one. As an asset becomes increasingly regulated the level of comfort on debt finance increases, and the cost of equity falls as the returns exhibit the qualities of a bond-proxy.

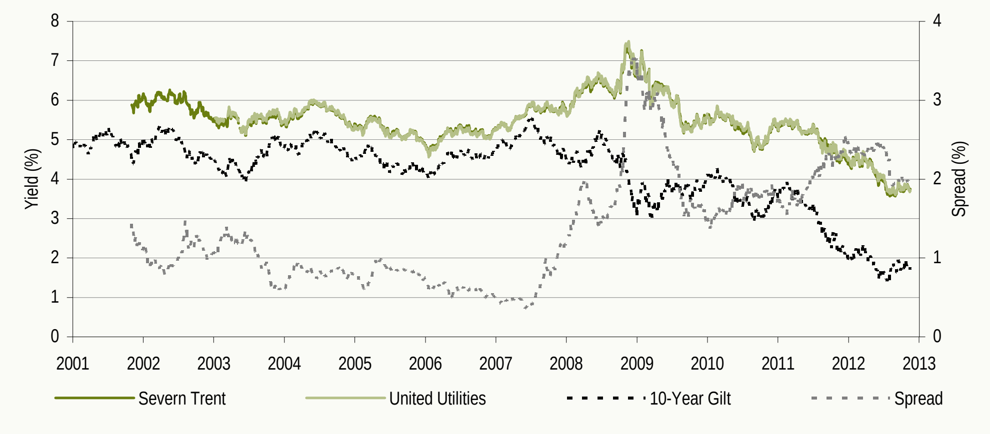
Figure 16: Liberum Capital cost of capital calculations

WACCs	Regulated	Non-regulated
National Grid	4.6%	
Severn Trent	4.9%	
United Utilities	4.9%	
Pennon	4.9%	8.0%
SSE	4.6%	7.0%
Centrica		7.0%
Drax		7.0%

Source: Liberum Capital Estimates

Investors in the UK water sector come from a number of sources, but are dominated by a combination of income funds, infrastructure funds and pension funds. Generally the risk return profile for these investors is low. The change in the risk profile from regulated to competitive will have consequences for investors. The increased risk is not likely to be attractive to existing investors, and the returns may not be attractive enough for new investors.

Figure 17: SVT and UU/ historic long-term bond yield and spread over gilts



Source: Datastream, Liberum capital estimates

Debt levels will be lower and the cost of debt will increase

One of the key reasons why the cost of capital increases is the level of debt decreases and the cost of debt increases.

Ofwat, like Ofgem, has a duty to ensure financeability of these networks and is using a number of financeability functions to ensure an investment grade credit rating. Ofwat determines an efficiently leveraged company is in the range of 55-65% debt/RCV, and uses a number of metrics to ensure this level of debt can be financed. The metrics to enable a BBB+ credit rating are summarised below.

Figure 18: Ofwat and Ofgem Financeability Metrics

	WASCs	WOCs	UK Electricity Distribution
Cash interest cover (FFO/gross interest)	3x	3.5x	3x
Adjusted cash interest cover (FFO less capital charges/net interest)	1.6x	1.8x	n/a
FFO/debt	13%	17%	n/a
Retained cash flow/debt	8%	10%	9%
Gearing (net debt/RCV)	65%	60%	70%

Source: Ofwat, Ofgem

However, if 40% of the RCV is taken outside the regulatory financeability test, then there is a material risk that these stocks have too high a level of leverage to support an investment grade credit rating.

We estimate that whilst an investment grade credit rating in the water sector can be supported by a FFO/net debt of 17% in a regulated utility, the likes of SSE need an FFO/net debt of >20% to be of a similar credit rating. This is a 20% fall in the level of debt that can be serviced for the same cashflow and would therefore lead to a reduced leverage. 40% of SSE is currently networks and we estimate that by moving from regulated to competitive would lead to a halving of the level of debt that can be carried by the competitive subsidiary.

Moody's has been one of the most vociferous commentators on this Water restructuring and we summarise their position on financing of the water companies in a number of quotes below:

Figure 19: Moody's on negative credit pressure

"Negative credit pressure will build for water companies in England and Wales over the medium to long term, due to a shifting regulatory landscape associated with Ofwat's ongoing review of regulation. But the full extent of the consequences will not become clear until the regulator publishes more detailed proposals later this year and in 2013."

Source: Moody's

Figure 20: Moody's on licence changes

"Continuing uncertainty around key features of their licences is credit negative for water and sewerage companies in England and Wales. That uncertainty will come into greater focus if companies -- a number of which oppose the changes -- do not accept the proposed amendments by the 23 November 2012 deadline, in which case Ofwat is expected to use its powers to refer the matter to the Competition Commission (CC)."

Source: Moody's

Figure 21: Moody's on flexibility asked for by Ofwat

"The degree of flexibility that Ofwat is seeking is surprising given its estimate that about 90% of companies' assets (on a current cost basis) would remain as part of wholesale activities. We also note that the credit profile of a company where 40% of revenue is subject to as yet undefined price controls and/or competition will be different to that of the rated water companies today."

Source: Moody's

Figure 22: Moody's on Competition Commission referral

"We would not ordinarily view a CC referral as credit negative; the Commission is an integral part of the regulatory framework in the UK and an important risk mitigant. However, as already mentioned, a referral would sustain current uncertainty and the perception of increased regulatory risk in the sector and that is credit negative. That the companies and regulator have been unable to reach agreement on this matter will, in addition, not reassure investors."

Source: Moody's

7) The water capital structure will need up to £10bn equity to be re-financed – we see a potential capital strike

If 40% of the RCV is to be removed, and even if we estimate that cost of debt in the regulated part remains unchanged (unlikely as regulatory risk has also increased), then we see that the UK water sector as a whole will need to raise £10bn of new equity. The water companies will have effectively been financed using the wrong capital structure, under a regulatory framework imposed by Ofwat. It is difficult to see how the market will be able to finance this level of new equity unless it is valued at a discount to fair value.

Figure 23: UK water RCVs and net debt (2009-10)

2009-10 Prices	Net debt 2009-10 £m	Avg Regulatory capital value 2009-10 £m	Gearing net debt/RCV 2009-10 %
Anglian	4,396	5,286	81
Dwr Cymru	2,654	3,660	70.7
Northumbrian	1,858	3,064	59.3
Severn Trent	3,869	6,288	59.6
South West	1,552	2,538	59.2
Southern	3,189	3,462	89.4
Thames	5,549	7,441	71.9
United Utilities	5,128	7,536	66.7
Wessex	1,530	2,185	68.4
Yorkshire	2,988	4,434	65.6
Total WaSCs	32,713	45,892	69.3
Bournemouth & W Hampshire	69	134	50.1
Bristol	204	268	75.1
Cambridge	28	56	48
Dee Valley	35	57	60.7
Portsmouth	85	109	77.3
South East Water	675	819	81
South Staffs	181	209	84.6
Sutton & East Surrey	130	163	78.1
Veolia Central	469	774	59
Velia East	15	60	23.9
Veolia Southeast	31	66	46.2
Total WoCs	1,919	2,715	69.3
Industry	34,633	48,607	69.3

Source: Ofwat

Figure 24: UK water sector equity requirements – up to £10bn needed

		Sector				
Leverage	%	69.3	69.3	69.3	69.3	69.3
RCV	£mn	29,164	29,164	29,164	29,164	29,164
Debt capability	£mn	20,211	20,211	20,211	20,211	20,211
Competitive assets	£mn	19,443	19,443	19,443	19,443	19,443
Leverage	%	0	20	40	50	60
Debt capability	£mn	-	3,889	7,777	9,721	11,666
Equity 'shortfall'	£mn	14,422	10,534	6,645	4,701	2,757

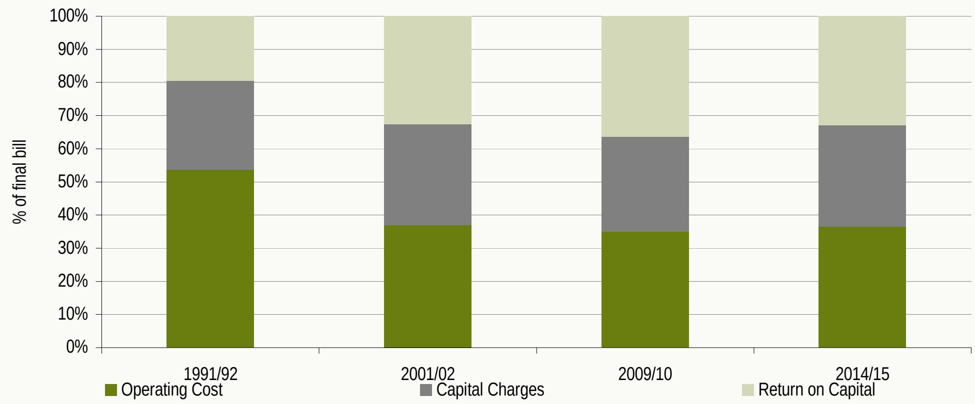
Source: Liberum Capital Estimates, Ofwat

8) Consumers will face a £7.7bn NPV bill, or 6.4% increase in bills, as cost of capital dominates, outweighing NPV benefits of competition

The largest single cost for consumers is the cost of capital. We estimate that nearly £100 out of the average £356 water and sewerage bill is the cost of capital.

On our estimates, a rise in the cost of capital, on the 40% of the RCV carved out, by 2% would increase end user bills by £22/customer – or c.6% of total bills. To the UK economy we see a negative £7.7bn NPV hit, which far outweighs the £2.5bn-£3.5bn positive NPV impact of adopting competition in the sector.

Figure 25: Breakdown of water bills



Source: Ofwat

Figure 26: The NPV of a 200bp cost of capital increase is £7.7bn cost to consumers

Cost of capital	post-tax real return	
RCV	48,607	£mn
Post-tax cost of capital	4.0%	
Post-tax cashflows	1,944	£mn
Pre-tax cashflows	2,558	£mn
RCV Regulated	29,164	£mn
RCV Competitive	19,443	£mn
Regulated	4.0%	post tax real
Competitive	6.0%	+200bps
Post-tax cashflows	2,333	£mn
Pre-tax cashflows	3,070	£mn
Increase in pre-tax cashflows	512	£mn
Households in England and Wales	22.5	mn
Price rise per household	22.7	£/household
Current bill	356	£/household
% increase	6.4%	%
NPV impact	7,675	£mn

Source: Liberum Capital Estimates, Ofwat

9) Investment decisions will become shorter term, asset light and less holistic

As uncertainty increases, investment decisions tend to become shorter term and focus on cash coming from contracts and price signals rather than longer term fundamentals over supply and demand. A good example of this is in the power sector, where an 18 month price signal dictates investment decisions for assets with 40 year, or more, lives. This means that large investment decisions, such as nuclear, are often difficult to achieve via private sector money in the absence of government incentives.

In the water sector larger, riskier projects will be difficult to finance and returns will focus on cash up front rather than a back-end loaded RPI return metric.

In holistic investment areas such as managing water sources or flooding, there could be conflicts of interest and a lack of co-operative behaviour. For example, in managing water run-off from farmland, where water processing costs may be reduced by incentivising farmers to operate differently, new entrants or incumbents may not have the framework to work together or to enable a lowest cost solution on a holistic basis as investments are likely to be made piecemeal.

10) Innovation can be still be achieved without the need to remove existing assets

We still believe that putting in a new system that allows economics to choose the lowest cost solution to consumers is positive. However, we believe that it should be put into place in a gradual way in which regulatory shocks and historic investment in good faith is taken into account. The UK faces unprecedented strains in its water sector, and innovative solutions are needed, but should not be to the detriment of investors and consumers.

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LIBERUM CAPITAL

Research

Large Cap Research

Banks

Cormac Leech
+44 (0)20 3100 2264
cormac.leech@liberumcapital.com

Construction & Building Materials

Charlie Campbell
+44 (0)20 3100 2090
charlie.campbell@liberumcapital.com

Consumer Goods

Pablo Zuanic
+1 212 596 4814
pablo.zuanic@liberumcapital.com

Media

Ian Whittaker
+44 (0)20 3100 2089
ian.whittaker@liberumcapital.com

Lisa Hau
+44 (0)20 3100 2098
lisa.hau@liberumcapital.com

Mining, Metals

Richard Knights
+44 (0)20 3100 2087
richard.knights@liberumcapital.com

Ash Lazenby
+44 (0)20 3100 2085
ash.lazenby@liberumcapital.com

Kate Craig
+44 (0)20 3100 2077
kate.craig@liberumcapital.com

Ben Davis
+44 (0)20 3100 2083
ben.davis@liberumcapital.com

Kit Bottomley
+44 (0)20 3100 2052
kit.bottomley@liberumcapital.com

Charlie Bendon (Specialist Sales)
+44 (0)20 3100 2078
charles.bendon@liberumcapital.com

Oil & Gas

Andrew Whittock
+44 (0)20 3100 2073
andrew.whittock@liberumcapital.com

Rob Mundy
+44 (0)20 3100 2107
rob.mundy@liberumcapital.com

Kate Sloan
+44 (0)20 3100 2217
kate.sloan@liberumcapital.com

Fergus Marcroft (Specialist Sales)
+44 (0)20 3100 2242
fergus.marcroft@liberumcapital.com

Pharmaceuticals

Naresh Chouhan
+44 (0)20 3100 2095
naresh.chouhan@liberumcapital.com

Roger Franklin
+44 (0)20 3100 2096
roger.franklin@liberumcapital.com

Graham Doyle
+44 (0)20 3100 2031
graham.doyle@liberumcapital.com

Real Estate

Alison Watson
+44 (0)20 3100 2276
alison.watson@liberumcapital.com

Rob Jones
+44 (0)20 3100 2252
rob.jones@liberumcapital.com

Paul Rostas (Specialist Sales)
+44 (0)20 3100 2251
paul.rostas@liberumcapital.com

Specialty Chemicals & Materials

Adam Collins
+44 (0)20 3100 2075
adam.collins@liberumcapital.com

Sophie Jourdier
+44 (0)20 3100 2072
sophie.jourdier@liberumcapital.com

Technology

Janardan Menon
+44 (0)20 3100 2076
janardan.menon@liberumcapital.com

Eoin Lambe
+44 (0)20 3100 2191
eoin.lambe@liberumcapital.com

Telecom Services

Lawrence Sugarman
+44 (0)20 3100 2074
lawrence.sugarman@liberumcapital.com

Transport, Travel & Leisure

Peter Hyde
+44 (0)20 3100 2094
peter.hyde@liberumcapital.com

Alexia Dogani
+44 (0)20 3100 2254
alexia.dogani@liberumcapital.com

Utilities

Dominic Nash
+44 (0)20 3100 2088
dominic.nash@liberumcapital.com

Guillaume Redgwell
+44 (0)20 3100 2195
guillaume.redgwell@liberumcapital.com

Alternatives & Funds

Conor Finn
+44 (0)20 3100 2257
conor.finn@liberumcapital.com

Rob Jones
+44 (0)20 3100 2252
rob.jones@liberumcapital.com

Paul Rostas (Specialist Sales)
+44 (0)20 3100 2251
paul.rostas@liberumcapital.com

Nicole Kwan (Specialist Sales)
+44 (0)20 3100 2259
nicole.kwan@liberumcapital.com

James Bouverat (Specialist Sales)
+44 (0)20 3100 2253
james.bouverat@liberumcapital.com

UK Small & Mid Cap

Support Services

Joe Brent
+44 (0)20 3100 2272
joe.brent@liberumcapital.com

William Shirley
+44 (0)20 3100 2271
william.shirley@liberumcapital.com

Jack O'Brien
+44 (0)20 3100 2273
jack.obrien@liberumcapital.com

Renewable Energy, Agriculture & Water

Nick Walker
+44 (0)20 3100 2267
nick.walker@liberumcapital.com

Sophie Jourdier
+44 (0)20 3100 2072
sophie.jourdier@liberumcapital.com

Daryl Smith
+44 (0)20 3100 2092
daryl.smith@liberumcapital.com

Capital Goods

Ben Bourne
+44 (0)20 3100 2275
ben.bourne@liberumcapital.com

Consumer Cyclicals

Patrick Coffey
+44 (0)20 3100 2192
patrick.coffey@liberumcapital.com

Equity Sales – London

David Parsons (Head of Sales)
+44 (0)20 3100 2125
david.parsons@liberumcapital.com

Simon Champ
+44 (0)20 3100 2112
simon.champ@liberumcapital.com

Edward Blair
+44 (0)20 3100 2117
edward.blair@liberumcapital.com

Julian Collett
+44 (0)20 3100 2113
julian.collett@liberumcapital.com

Sean Dixon
+44 (0)20 3100 2124
sean.dixon@liberumcapital.com

Richard Mawer
+44 (0)20 3100 2114
richard.mawer@liberumcapital.com

Tim Mayo
+44 (0) 20 3100 2127
tim.mayo@liberumcapital.com

Tajender Sandhu
+44 (0)20 3100 2238
tajender.sandhu@liberumcapital.com

Archie Soames
+44 (0)20 3100 2193
archie.soames@liberumcapital.com

Iain Whiteley
+44 (0)20 3100 2126
iain.whiteley@liberumcapital.com

UK Small & Mid Cap

Steve Tredget
+44 (0)20 3100 2236
steve.tredget@liberumcapital.com

Rory Stokes
+44 (0)20 3100 2237
rory.stokes@liberumcapital.com

Thomas Inskip
+44 (0)20 3100 2274
thomas.inskip@liberumcapital.com

Equity Sales – New York

Mark Godridge
+1 212 596 4823
mark.godridge@liberumcapital.com

Harry Jaffe
+1 212 596 4811
harry.jaffe@liberumcapital.com

Larry Stevens
+1 212 596 4812
lawrence.stevens@liberumcapital.com

Sarah Port
+1 212 596 4818
sarah.port@liberumcapital.com

Sumeet Gupta
+1 212 596 4807
sumeet.gupta@liberumcapital.com

Robert Kaplan
+1 212 596 4817
robert.kaplan@liberumcapital.com

Sales Trading – London

Nina Dixon
+44 (0)20 3100 2109
nina.dixon@liberumcapital.com

Nick Worthington
+44 (0)20 3100 2106
nick.worthington@liberumcapital.com

Paul Beamont
+44 (0)20 3100 2115
paul.beamont@liberumcapital.com

David Thompson
+44 (0)20 3100 2062
david.thompson@liberumcapital.com

Paul Somers
+44 (0)20 3100 2063
paul.somers@liberumcapital.com

Mark J. Edwards
+44 (0)20 3100 2061
mark.j.edwards@liberumcapital.com

Keith Raulli
+44 (0)20 3100 2116
keith.raulli@liberumcapital.com

Harry Preece
+44 (0)20 3100 2118
harry.preece@liberumcapital.com

Trading

Jonathan Plant
+44 (0)20 3100 2102
jonathan.plant@liberumcapital.com

Dominic Lowres
+44 (0)20 3100 2103
dominic.lowres@liberumcapital.com

Simon Warrener
+44 (0)20 3100 2105
simon.warrener@liberumcapital.com

Peter Turner
+44 (0)20 3100 2170
peter.turner@liberumcapital.com

Convertibles

Simon Smith
+44 (0)20 3100 2171
simon.smith@liberumcapital.com

Richard Tomblin
+44 (0)20 3100 2172
richard.tomblin@liberumcapital.com

Market Making

STX 77440
+44 (0)20 3100 2200