



## Meeting future infrastructure needs



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# The current context

## 1989

- Substantial investment requirements to meet EU quality standards and repair backlog
  - £22bn over decade (1990 prices)
- Balance sheets restructured to support financing of capital investment
  - Green Dowry and zero debt
- Scope for operating efficiencies identified by comparative efficiency analysis
  - Up to 2.7% p.a. in first two reviews
- Expected 2% p.a. real terms price increases for customers – but regulation mitigated larger price increases

## 2010

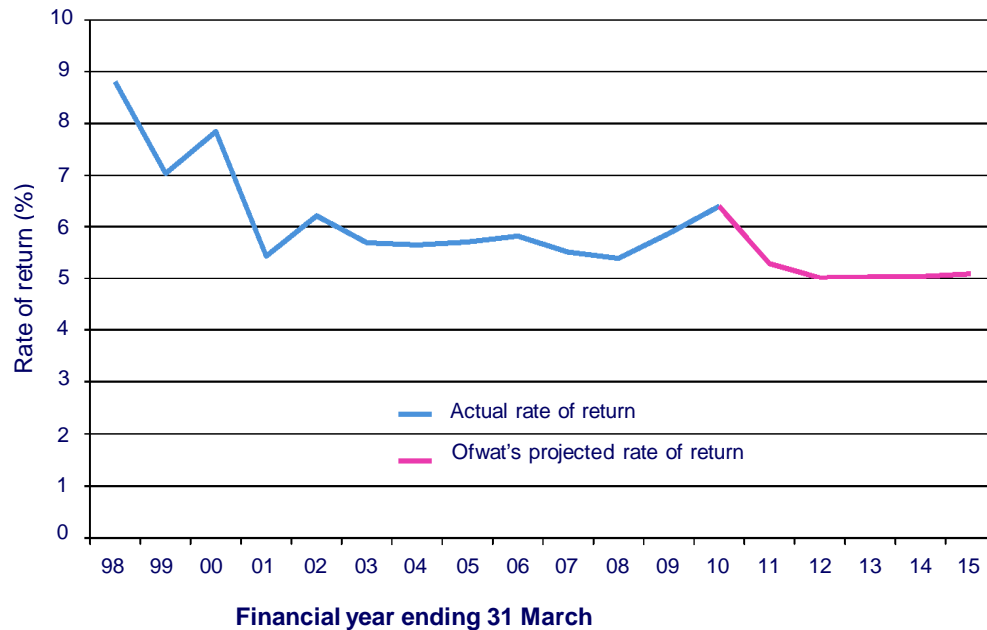
- Continuing heavy investment requirement (Water Framework Directive, scarcity, resilience)
  - Another £22bn over PR09
  - Rising towards £25bn in next PCR
- But industry now more heavily leveraged
  - Mostly around 70% as compared to Ofwat notional 55 – 65%
- Scope for operating efficiencies reduced
  - Down to 1.5% p.a.
  - 0.25% in PR09 before catch-up
- Expected real price increases of 0.5% p.a. in PR09 supported by 'low' cost of capital

# Three key challenges looking forward

- Optimal financing
- Competition and incentivisation
- Regulation and incentivisation

# Regulators have not explicitly addressed optimal financing

Post-tax rates of return (vanilla basis) 1997-98 to 2014-15



- The regulatory regime has to-date worked well in driving down the cost of capital
- But this has in part been at the expense of equity, especially after PR99
- An equity buffer supports efficiency incentivisation in RPI-X model
- The regulatory response has been to limit risk transfer to consumers (ring-fencing, investment grade credit rating)
- But excessive debt will tend to increase regulatory micro-management to mitigate customer's risks
- At the same time, regulators want to increase risk/reward incentivisation...

# **A key challenge is to ensure that the financial framework remains consistent with the incentive framework for efficient infrastructure**

- Higher powered incentives tend to require more equity capital
- Imposing demand, operational performance and pricing risk tends to accompany market liberalisation
  - Investment in new electricity generation
  - Postal services
- Reduced demand risk
  - NATS
  - Electricity networks
- ...market structures will evolve in response to changing regulatory/market frameworks
  - Exit of IPPs from the generation sector

# Competition is likely to provide some scope for incentivising future efficiencies

Options	Nature of efficiency gains	Lessons for water
<p>Commodity competition</p> <ul style="list-style-type: none"> <li>Retail separation</li> <li>Wholesale price transparency</li> </ul>	<p>Co-ordination benefits</p> <p>New entry</p>	<p>Avoid retail cost escalation</p> <p>Where marginal costs exceed average costs, then promoting output based competition is challenging. Cream-skimming also not necessarily efficient</p>
<p>Merchant networks</p> <p>Price signals and revenues in electricity/gas are complex</p>	<p>Innovation</p> <p>New entry</p>	<p>Need clarity on demand</p>
<p>Restructured franchises</p> <ul style="list-style-type: none"> <li>Rail longer-term</li> <li>Unbundling Gatwick</li> <li>Electricity/gas networks</li> </ul>	<p>Economies of scale/scope</p>	<p>Valuation of comparators</p> <p>Re-assessment of scope</p>
<p>Open-tendering</p> <p>RPI-X @20</p>	<p>Innovation</p> <p>New entry</p>	<p>Transparency and standardisation</p>

# Regulation – searching for efficiency gains or incrementalism

## Balancing penalties and rewards

- CAA – 7% downside/2.5% upside on revenue at risk for BAA at Heathrow on Service Quality
- Ofgem – identifying scope for outperformance through RORE (385 bps downside/52+ bps upside) and focusing on outcomes (fixed incentive rate)
- Ofwat – OPA and CIS are main schemes

## Avoiding distorted incentives

- Ofgem – equalising incentives across infrastructure and non-infrastructure

..... **trend not consistent with micro-management**

# New structures need to be consistent with efficient financing

## Factors driving down today's cost of capital

- RCV transparency and integrity
- Minimal stranded cost risk
- Shipwreck clause/financeability duty
- Regulatory consistency

## Future regulation

- Constructive engagement across stakeholder groups
  - EA, DWP, CC Water, Natural England
  - Challenge groups
  - Multi-layered approach
  - Informed trade-offs
- Develop contract markets
  - Input not price based
  - Scope for investor diversification
  - Minimise transaction costs
  - Balance long-term commitments against re-openers



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