Incentive regulation from the inside

Resetting 12 RPI-X price caps in 1993 – 95

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Stephen Littlechild (former Director General of Electricity Supply)

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Introductory remarks about Zeeman

- Christopher Zeeman was appointed head of the newly created Warwick University mathematics department. He very soon attracted there five of the world's top mathematical topologists. Reportedly, when he first invited them they all declined. So he wrote back to eachone saying "That's a pity, the other four have all accepted". Whereupon they all accepted.
- I attended a Mathematics and Economics Recontre at Warwick, with Zeeman, in 1974. Certainly some of the world's top mathematical economists were there, and I assume some of the top mathematicians. I was the only one whose affiliation was given as Operational Research. I am now worried that he wrote to the world's top Operational Researchers saying "By the way, Littlechild will be there", whereupon they all declined.

Warwick Rencontre: Mathematics & Economics, 10-15 June 1974

Outline

- Aim to provide insight into regulatory thinking in setting incentive price controls
- I Initial development of incentive regulation
  - 1983 I proposed RPI-X for British Telecomms privatisation
  - 1984-91 Many utility privatisations with RPI-X caps
- II 1993-4 I reset Regional Electricity Company (REC) RPI-X price caps
- III Should I reopen the price control review?
  - 1994/5 Trafalgar House bid for Northern Electric – heavy media criticism – decision to reopen
  - 1995 MMC report on SHE's proposed price cap
  - My revised REC price caps
- IV Reflections: what went well and what should I have done differently?
- V 3 suggestions for an alternative approach
- Note 1) this was an early (prehistoric) stage of UK regulation
  - Geoff Horton: Some of what we learnt was blindingly obvious in later reviews
- 2) perhaps not so much how to do it as how not to do it?

1983/4 privatisation of British Telecoms (BT)

- 1979 Mrs Thatcher elected Prime Minister
- 1982 Govt decision to privatise BT
- Dept of Industry proposed max & min rates of return, Walters proposed output-related profit levy; I was asked to advise
- 1983 Report: I said both problematic, and suggested RPI-X price cap
  - Not least because BT's advisers Warburgs (Andrew Smithers) had proposed linking price to inflation before privatisation was considered & Govt had accepted for BT
  - Though I now discover that BT's chairman was opposed to it
- Govt accepted RPI-X. I thought setting X would be straightforward
  - simple trade-off: customer benefits v proceeds of flotation
- It wasn't. But serious problems in negotiating X not apparent at the time

Many RPI-X utility privatisations 1983-1990

- BT RPI-3, British Gas (BG) RPI-2, British Airports Authority (BAA) RPI-1
- Water cos RPI+3 to RPI+7
- National Grid Go (NGC) RPI-0 (jointly owned by RECs)
- Regional Electricity Cos (RECs) RPI+0 to RPI+2.5
- Govt wanted to make flotations a success (in terms of proceeds)
  - X gradually more lenient over time
- I thought level of X relatively unimportant as long as it incentivised efficiency
- I wasn’t well attuned to customer and media concerns about utility profits

Resetting X

- Oftel increased BT’s X from 3 to 4.5 without explaining
  - Carsberg: X set so ROCE = cost of capital at end of next period
  - High profits would be eliminated gradually, as in competitive market
  - Seemed plausible
- Ofgas increased BG’s X from 2 to 5
  - McKinnon: make company agonise between accepting and rejecting
  - Seemed difficult to apply to 12/14 different companies?
- Ofwat: “glide path” over 10 years from around 13% ROCE to 6-7%
- OFFER: I tightened NGC cap from RPI-0 to RPI-3 (also Scots trans)
  - More challenging opex & capex assumptions, set NPV revenue = NPV cost
  - No public reaction – resetting price caps seemed pretty straightforward

REC distribution price control review

- Revised REC price caps needed for April 1995
- Our review timetable started Oct 1993 … but pressure before then
- Feb 1991 media calls to act after rumoured 13% price increases
  - Licences allowed RECs to make their own estimates of inflation
  - Dept of Energy “a growly letter would be helpful”
  - But soon profits announcements E Mids 31% above prospectus forecast
- Mar 1992 Select Cttee demanded early review, as did media
  - “He should follow the lead of the gas regulator and cut prices” (D Express)
  - **“Poodle power:** In all the former state concerns, we desperately need watchdogs that not only bark but bite. **In the prof’s case we seem to have an animal about as fierce as a stuffed poodle”** (*Sun*, 17 June)

Whether to respond before scheduled review

- Unfortunate timing – Ofgas tightening was at scheduled review
- But Oftel had agreed voluntary price freeze with BT before the review
- Should we? Personal distaste for arm-twisting and covert deals
- And concern about disincentive effect on efficiency
- But anyway, would 12 RECs all agree a price freeze?
    - Different implications for different RECs (no problem for those with RPI-0% but what about those with RPI+2.5%?)
- If one REC didn't agree, just accept (toothless regulation)? or send to MMC, thereby ripping up flotation prospectus & incentive regulation?

Premature intervention: pro and con

- MPs were calling for “a shift to rate-of-return regulation on the American model” (*Times* Jan 1993). Then in an Autumn 1993 conference:
- Dieter Helm: “Unlike many of the other regulators, he [Littlechild] has doggedly stuck to his principles, as the recession bit deeply and as the profits and returns to REC shareholders have greatly increased. …[However], it is very hard to imagine that, if the Director General had lowered prices during the first period, RECs would have given up their drive for operating efficiency. … If anything the failure to intervene has allowed a more leisurely approach to cost-cutting.” (Autumn 1993)
- SCL response: “[to intervene] at an early stage one would have been calling into question the whole regulatory regime”. This would have increased the cost of capital and outweighed the short-term price reductions, and enabled companies to argue for price increases if costs increased.

How to reset REC distribution price caps?

- 3 approaches considered within OFFER (for about a year!)
- REC CCA accounts: used for NGC, by Ofwat & supported by RECs
  - But who knows what RECs doing with their CCA costs? (contrast Ofwat control)
  - And their CCA values looked high compared to flotation values of the RECs
- Horton: cover efficient costs, depreciation & return on investment
  - But depreciation backward-looking, not economic, sounds like US rate of return approach
- Beesley: should be forward-looking, set X to maintain flotation share price if REC meets our proposed cost efficiencies
  - But how to know what X will lead to what share price level? Should I attempt to influence share prices? And how was I to explain this approach to the world?
- We explored possible revenue implications of each approach – not conclusive
- Eventual decision: use Horton provided word depreciation not used
  - So he called depreciation "return *of* capital", to go with return *on* capital
  - Horton's building block model widely used since in UK & Australia

20 April 1994 First proposals (confidential)

- Use flotation values for initial asset values, not CCA or HCA
  - Flotation values significantly lower than CCA
- I hadn't intervened earlier, so I wanted faster price reduction with new cap than other regulators had proposed
- Set X so that price equal to, rather than declining to, efficient cost
  - NPV revenue = NPV cost
- To avoid later price below cost, this meant an initial price reduction (Po) instead of Oftel/Ofwat glide path
  - Used by Ofwat (and Ofgem) in subsequent reviews

20 April 1994 First proposals (contd)

- Recall existing caps: range RPI+0 to RPI+2.5 (ave RPI+1.3)
- REC own cost projections implied: RPI-4 to RPI+4 (ave RPI+0)
- I asked Horton: Make toughest defensible cost assumptions
  - RECs would have to persuade us rather than us persuade them
  - I assumed this was a conventional negotiating tactic
- Our proposals: initial Po cut 24% - 40% (ave 31%) then RPI-3
  - Equivalent to (without initial cut) RPI-10 to RPI-15 (ave RPI-13)
- Companies were stunned – but produced fruitful discussion
- But one problem: all confidential but one company leaked info to media
- Share prices fell (roughly to reflect implications of RPI-13)
- We stopped further leaks – but share prices stayed artificially low

24 June 1994 “presently minded” letter

- Took on board some company arguments re opex & capex
- We needed to increase allowed revenues to satisfy financial ratios
- Uprated flotation asset values by 50% to reflect fall in cost of capital
- Lower Po reductions than before and X = 2 instead of X = 3
  - If no Po reductions, average X = 8% instead of REC 0% & our previous 13%
- Final meetings with RECS, most argued for further relaxation
  - But Southern said OK for us, tighten for the others
  - Jim Smith proposed agree for Eastern which would force others to fall in line

11 August 1994 outline (final) proposals

- Slight modifications then published outline (final) proposals
- About as 24 June letter, but RECs were grouped (to reduce challenge)
  - Po cut 11% for 3 RECs, 14% for 6 RECs, 17% for 3 RECs
  - Then all had RPI – 2 for next four years
- On average equivalent to RPI-6.5% for 5 years. Most severe cap yet
- But Consumer Committee chairs said “But X is only 2”
- Share prices surged (compared to last info in leaked document)
- Media argued that share price increases meant I had been too soft
- All RECS accepted in principle & staff began to work on detail

3 Nov 1994 Post Mortem: taking stock

- Carter (DDG): Some assumptions perhaps a little generous. But most important reason for perceived leniency & share price increases was decision not to claw back profits from first period control
- Public defence: blaming initial control would call into question why we didn't review it, and the effectiveness of RPI-X regulation
- Possible action: early review of new control wouldn't produce any radically different results and would call it into question
- Lessons for future controls: 12 month timetable a bit tight; external consultants not as good value for money as staff & in-house consultants; should consider publication of "presently minded" letter (rather than confidential)
- So I defended the control, e.g. in 30 Nov 1994 speech
  - "strong defence" (Fin Times), "extraordinary defence" (Guardian)

Trafalgar House bid for Northern Electric

- 14 Dec 1994 Trafalgar House considering bid for Northern Electric
  - Northern share price increased 12 ½%
  - Built in £20 customer rebate “taking up hint by Prof Littlechild”
  - “Which showed that £26m (= £20 x 1.3m customers) could easily be found” (Pallett)
  - I welcomed challenge of competition in capital market, but had concerns about loss of information as subsidiary & no share price
- Feb 1995 Sec of State Heseltine didn’t refer the bid to MMC
  - Northern share price increased further 11%
  - Other REC share prices also increased on prospect of further bids
  - Northern final defence offered £560m to its shareholders

Media comments were not favourable

- “Northern riches show farce of price curbs”. “Reach for your electricity bill, focus on how much you are being charged and, if you have teeth, prepare to gnash them now. Any lingering pretence that electricity privatisation achieved a proper balance between the interests of customers and investors flies out of the window this morning. . … In a little over four years, shareholders have multiplied their money more than 4 ½ times. … We do of, course, have a regulator to ensure fair play, Dr Stephen Littlechild, director general of Offer. The power men made some show of quaking in their boots last spring as Littlechild set about reviewing price controls until the end of the century. Sadly Littlechild displayed all of the resolution of a blindfolded rabbit on a railway track.” (*Daily Mail*)
- “Time for Littlechild to turn off the lights and leave… Not to put too fine a point on it, the companies have hoodwinked the regulator and Stephen Littlechild’s failure to understand the industry he regulates is graphically exposed. … It was Mr Littlechild’s responsibility to ensure that some of the benefits went to customers. He has failed, and he should resign” “Prof Littlechild is there to see a fair division of gains between customers and shareholders, and he has failed to do so. He should take his incomprehensible equations and return to his post at Birmingham University.”(*Daily Telegraph*)
- “If they ever make the film *The Regulator*, they should not give the title role to Arnold Schwartzenegger. Judging by the performance of the electricity industry regulator, Professor Stephen Littlechild, muscular ruthlessness is not required for the part. … It looks very much as though he was hoodwinked a year ago by the companies’ assertion that there was limited potential for further efficiency gains. He made a mistake and he should admit it. If he does not, the regulator – our regulator - should be terminated” (*The Independent*)

Feb/March 1995 What to do?

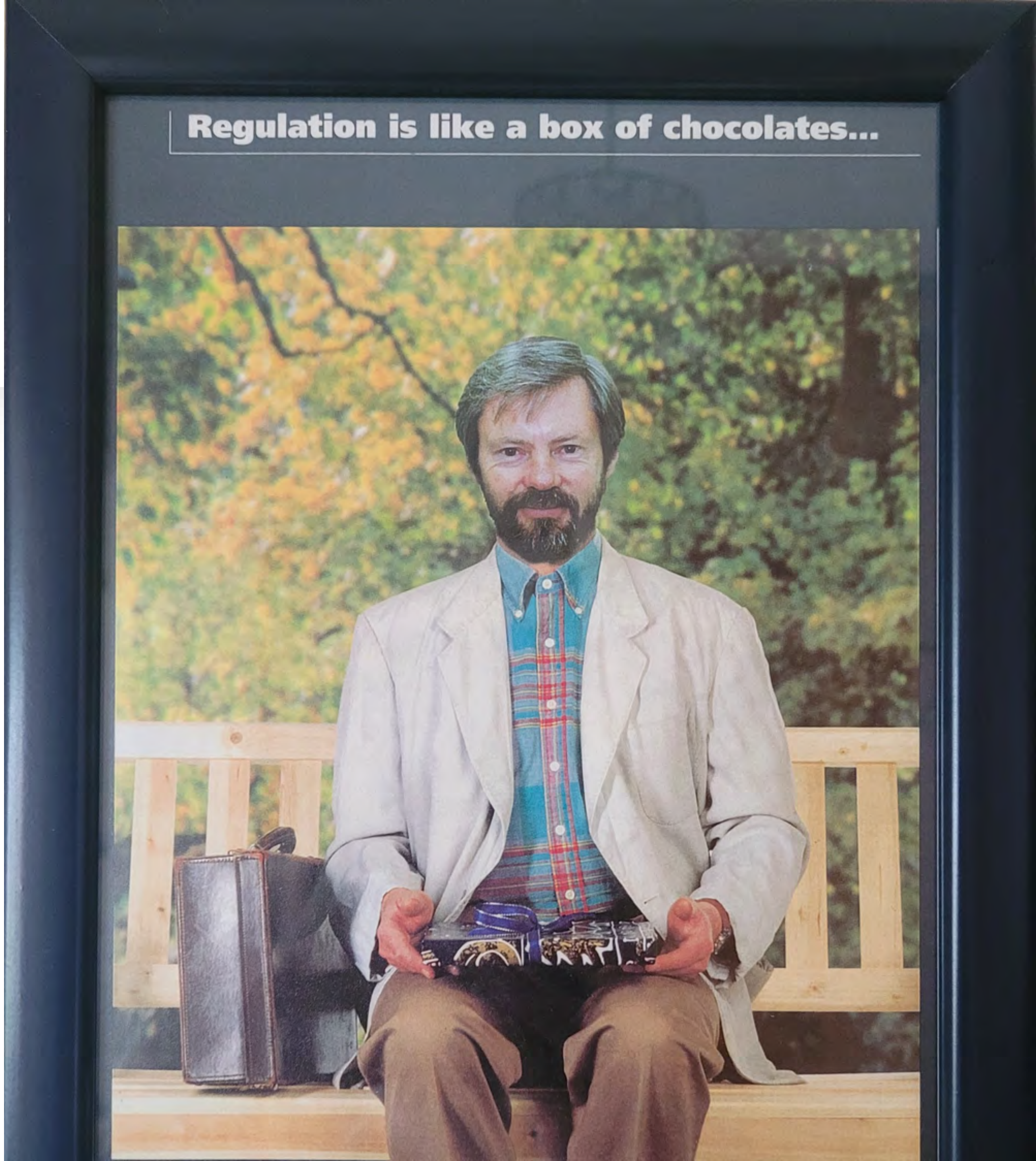
- Media criticism could undermine confidence in independent regulation
- Reopen price control review (it was not yet formally completed)?
- Refer Northern’s proposed price control to MMC?
- But major problem: Govt was selling remaining 40% shares in generators: conventional “stabilisation period” ie do nothing
- Sec of State Heseltine: “if you do something I shall support you, but if you don’t I shall have to consider doing something”
- 4/5 March 1995 Agonizing: whether to reopen review? & on what basis?
  - Very serious arguments pro and con
- Decision: New information (Northern bid & defence) so reopen review, but implement first year as proposed & reconsider later years

Reactions to reopening the review

- Message from OFFER Consumer Affairs: strongly supportive!
- REC share prices fell 20%, generators fell 10%
- Media: “industry in turmoil”
  - “I feel almost as if I have been sent to the lunatic asylum” (pension fund)
  - “Man with beard casts thunderbolt” (*The Times*). “Professor Littlechild is not just shifting the goalposts; he seems to have dug up the entire pitch” (*The Independent*). “Suddenly supermouse puffs himself up like superman” (*Daily Mail*). “No professor, it’s sheer madness to continue your work”(Daily Telegraph)
- REC chairmen: very different views
  - “The announcement has effectively removed all confidence in the regulatory framework and replaced it with instability. It is now impossible for us to implement the measures we had planned or indeed to take sensible business decisions about the future” (Brian Townsend, Midlands)
  - “Whilst there may be increased uncertainty over the future regulatory environment, this uncertainty is no greater than that faced by many businesses operating in competitive markets” (Keith Stuart, Seeboard)
- Prime Minister
  - “Mr Major said OFFER’s action showed that the regulatory system was flexible and was working.”

Nat West Securities' view

- ... You never know what you're going to get



April-May 1995 Reconsidering the price caps

- Updated REC info – no reason to question assumed opex reductions
- Capex – 3 RECs underspent in 1994/5 – adjust – but projections ok
- Cost of capital – in line with recent MMC report on BG
- So no reason to question assumptions underlying proposed control
- But … MMC was investigating Scottish Hydro Electric (SHE) appeal against OFFER price control proposal
- Would this have any implications for REC price caps?

June 1995 MMC report on Scottish Hydro Electric

- MMC largely endorsed OFFER proposed price cap for SHE
- Allowed higher capex (and price) for better quality of supply
  - Which perhaps suggested, if anything, that I had been too tough on SHE, but didn’t help with REC control
- MMC said restructuring/redundancy costs should be self-financing, not reimbursed in price cap
- Rejected flotation value adjustment for changed cost of capital
  - Though opposite adjustment for SHE and RECs
- So we could use these last two findings

July 1995 Revised REC price control

- Rejecting redundancy costs enabled increase in X from 2 to 3
  - Addressed consumer committee concern that “X is only 2”
- Reducing flotation value uprate from 50% to 15% enabled another Po reduction, of 9% (in addition to X = 2% that year)
  - 15% acknowledged some other arguments for uprate & left RECs with risk of something to lose if they appealed
- Capex underspends 1994/5 increased Po reductions for 3 RECs
- Less banding - relaxed Po for 2 RECs but increased Po for 3 others
- Overall: additional 10%-13% Po reductions then RPI-3 instead of 2
- Media view: “just about spot on” (Financial Times, July 1995)

In retrospect, what to think of the process?

- Comfortable with most aspects, but what about following 5 issues?
- Confidentiality? Naïve to assume no leak, & process better public
- Planning of work? Could have done with more time. Appointed senior financial adviser for next review, plus “three wise men” – worked well
- “Missing available well-understood data” (Jamison 2015)? No evidence for this
- Tension between efficiency and fairness? In retrospect probably should have intervened earlier (after 1992 via Heseltine, who liked intervening)
- Was it all worth it? Yes. Halved distribution & transmission prices in 10 years (1995-2005), & very significant innovation in company processes

3 suggestions for an alternative approach

- Experience 1993-95 (& later) suggests important 1) to carry public opinion, 2) to respond to unexpected developments and 3) to enable innovation
- Several important & useful developments since RPI-X, but scope to go further
- 1 Suggest that, in future, aim should be an agreed settlement accepted by all interested parties (including consumer & environmental groups), instead of a price control determined by regulator alone
  - Negotiated settlements are common in several parts of USA
  - And at UK airports (except Heathrow) & in Scottish water sector
  - Ofgem & Ofwat have successfully encouraged this for business plans, but not yet for price
- 2 Parties should monitor, review & revise plans ongoing – not leave for 5 years
- 3 Different companies & parties should be allowed to do different things, on different timescales – hence more innovation and discovery
- Regulators would not be out of a job, but could enable a more responsive and acceptable discovery and adjustment process

Final observation

- Understanding what actually happened in the 1993-95 price control process would not have been possible without access to the relevant OFFER publications and internal memos.
- I happen to have kept my own copies of papers on this particular topic. But almost all the OFFER records have since been destroyed.
  - "Ofgem's third party records storage contractor has been instructed to destroy files over 20 years old in line with Ofgem's obligations under the Public Records Act 1958, apart from a very small number which are in the process of being selected and prepared for The National Archives, including OFFER files regarding NETA and Nuclear Review." (Ofgem, personal communication, 13 Dec 2023)
- Can destroying almost all regulatory records really be the right policy?
- It's not the approach that Ofwat has taken