RPI – X at 20

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Time to take stock of the UK's regulatory arrangements

- Ofgem has undertaken the review to address:
  - "good housekeeping"
  - complexity concerns
  - whether regime can tackle new problems
- Regulatory approaches to tackle one issue have created other issues elsewhere, resulting in
  - confused or contradictory signals
  - perverse incentives
  - non-alignment of public policy goals with commercial objectives

The RPI-X @ 20 project is an opportunity to…

Properly characterise the medium term and long term risks facing the business

Evaluate who should most appropriately bear those risks

Put together an incentive framework with the right risk sharing and incentive properties

Where price controls will get more difficult: Investment

Stranding	- Pipelines as the gas depletes - Electricity transmission as de-centralised generation connected	Should the price control be capable of dealing with these?
Investment uncertainty & revenue recovery	- Ageing assets need replacing - Impact of commodity price inflation/deflation	

Investment uncertainty and incentives	- Both anticipating the changing "shape" of the networks and having the incentive to respond appropriately
	  - Pipes for biogas
	  - Wind and nuclear
	  - De-centralised generation
	  - Smarter networks (not just meters)
		Is a price control framework capable of dealing with these?

Key evolutionary issues

- Reward out-performance or cost cutting
- Promote reliability of regulatory forecasts

Where price controls will get easier: productivity factors

Conceptually, what does the productivity factor do?

- The X factor defines the real rate of reduction in regulated prices

$$X = \Delta \log RPI - \Delta \log w^R + \Delta TFP^R$$

- Its effect is to introduce a wedge between input price change and change in productivity
  - Economy as a whole – change in real input prices = change in productivity… or, put another way

$$\Delta \log w^E - \Delta \log RPI = \Delta TFP^E$$

  - Regulated sector – change in real input prices = change in productivity *less* X factor… or, put another way

$$\Delta \log w^R - \Delta \log RPI = \Delta TFP^R - X$$

- How long can regulators assume that customers, rather than the owners of the inputs, lay claim to the benefits of productivity performance?
- Risk: Violation of the input owners' participation constraint

Key implications

Why should X be different from zero?	• Uncontrollable input price inflation (with networks disproportionately exposed) • Scale effects • Agency hidden information • Agency hidden action • Existence of measured slack
So what is a credible long term level of X?	• Post-privatisation, productivity could rise faster than rewards (relative to the rest of the economy) because there was lots of slack – big X factors possible • In many mature post-reform environments, this is no longer the case, and it is unsustainable to impose a significantly different relationship between payment and productivity in the regulated sector than in the rest of the economy
Has RPI-X outlived its usefulness now that the X will tend to zero?	• RPI-X is an incentive contract, and incentives are still required going forward • The value of X is an outcome, not a target, of good regulation

Key risk: lack of regulatory credibility

In principle, the value of X and the incentive-power of the regime should be separable

In the B-WJ paper we raise the prospect that the two are inter-linked if populist pressure around the profits earned by utility businesses is potentially high, and regulators are unable to credibly set higher powered regimes

Example:

- High-powered control with X=0
- X=0, but weaken the power of the control
- X>0 with high-powered control

Populist responses

Action 1: Raises financing/stewardship issues (need to be corrected ex post)

Action 2: Raises efficiency concerns

- Locks in a lower powered regime that will take many years to unwind

What could future UK network reviews look like?

Opex efficiency targets

- Formal recognition that fat has been stripped, and ramp down regulatory scrutiny
  - Reduced need for benchmarking
  - Ongoing productivity factor of zero
  - Return excess performance via an industry-wide ratchet

Capex forecasts

- Refine and improve incentives for truthful forecasting and retain strong incentives for "out-performance" as opposed to "cost-cutting"

WACC

- Greater regulatory concern over highly leveraged businesses in an uncertain environment

RAB

- Retain current insurance against stranding, but risk-sharing arrangements becoming more prominent as networks start to change shape

Tariff structures

- Encourage efficient investment and connection decisions

Incentives

- Remain strong

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