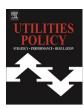


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Developing countries experience and outlook: Getting the framework right[☆]



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ABSTRACT

Developing and transitional economies have adopted and implemented "RPI-X" or "incentive based regulation" over the past few decades, building on the reforms in the UK and elsewhere. However, for incentive based regulation to deliver the desired outcomes it needs to be implemented in a comprehensive manner (both in terms of substance and process), or at least in a considered way, with any deviations from standard approaches understood in terms of the potentially perverse impacts or incentives that might arise.

Using three examples from developing and transitional countries and one from a developed European country this paper investigates some of the ways in which regulators have got the framework wrong, or at least created difficulties for stakeholders through their decisions. These examples help illustrate some of the broader philosophies and processes that may not often be discussed but which are as important for ensuring successful regulation as are the specific details of the regime.

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1. Introduction

Ten years ago, at the 20th anniversary conference of the Littlechild Report, I argued that developing and transitional countries not only were able to apply "RPI-X" or "incentive based regulation" but that this was a better solution to the issues they faced than traditional rate-of-return regulation.² Primarily these arguments were based around:

- issues with data asymmetry and the best ways to encourage companies to reveal information;
- the ability of incentive based regimes to promote both investment and efficiency; and
- maximising the impact of scarce regulatory capacity.

In each case a comparison of actual incentive based multi-year regimes against rate of return regimes showed that incentive regimes were no worse than rate of return and could be much better at achieving the desired regulatory outcome.

While I still believe the general thrust of that paper, being 10 years older, and possibly wiser, there are some caveats about the way in which incentive based regulation is implemented that need to be understood for my original position to hold.

An apt quotation for these caveats might be:

A little learning is a dangerous thing; drink deep, or taste not the Pierian spring: there shallow draughts intoxicate the brain,

and drinking largely sobers us again.

Alexander Pope (1709)

What I argue in this paper is that it is possible that some regulators have unwittingly fallen prey to the fact that "a little learning is a dangerous thing" and having put in place what they believe to be an incentive based regime have failed to "drink deep" and ensure that it is actually a comprehensive incentive based regime that has been established. While scratching the surface of the regime these regulators have failed to either:

• grasp one or more of the key underlying philosophies of incentive based regulation; and/or

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² See Alexander (2003).

• follow necessary processes.

These concerns are based on a small number of examples, primarily from developing and transitional countries but also from developed ones. These examples are used to illustrate the requirement of ensuring a holistic or "joined-up" regime being necessary to deliver standard regulatory objectives.³ By this I mean that when you decide to implement an incentive based regime you need to implement the whole regime, not just cherry-pick parts of it. Of course, one should not copy a regime that is not applicable to your circumstances, but a regime needs to address all elements and ensure that they are consistent — for example, choosing to use a nominal WACC with an inflation updated asset valuation would not be consistent as investors would be rewarded for inflation twice. I am sure other examples exist, often with complicated solutions in place to seek to address the perverse implications that arise.

Clearly there are solutions to the concerns that arise. Some that can be captured through wholesale reform of the regime and others that work within existing constraints to achieve the desired outcome. While the former are preferable, it is often reality that the latter is what are actually implementable. Some of these solutions are also considered in the remainder of this paper.

2. Underlying regulatory philosophy

Significant emphasis is placed at every price review on the estimation of the allowed rate of return, or weighted average cost of capital (WACC) that a company is allowed to earn. In the UK, at least, much less emphasis is placed on the estimation of the asset value, Regulatory Asset Base (RAB), to which the WACC is applied when calculating the allowed level of profits. Yet, it is the combination of these two items which create the incentives for investment through investors being able to earn, or better, their required rate of return.

Before considering some examples of the way in which regulators have set the combined RAB and WACC, it is worth reviewing the key underlying philosophy with respect to these aspects — Financial Capital Maintenance (FCM). UK incentive based regulation is built around the FCM concept, which at its heart is simple. It can be summarised as follows: if an investor invests £100 into a company they should expect to earn an appropriate real rate of return on the investment AND receive back the real purchasing power of their original investment, ie the original value adjusted for inflation.⁴

UK regulation has embraced and simplified the FCM approach through the way in which the RAB and WACC are calculated. The normal UK approach would be for:

- efficient investments (which can include an initial privatisation value) are rolled forward by inflation so that the real purchasing value of the investment is maintained; and
- the WACC is calculated on the basis of a real value adjusted for the risk faced by the sector.

This means that the real value of investments is protected and all that regulators need to focus on is an appropriate estimate of the WACC. (Obviously determining which investments are efficient is a whole separate question!)

Box 1

Colombian electricity regulation.

Colombian energy regulation has followed a fairly standard incentive based regulatory approach although returns have been calculated as an annuity rather than separate depreciation and allowed profit (a standard approach in Latin America which over the life of the asset provides the same cash-flows as the normal UK approach but which, like a mortgage, places a greater emphasis on "interest" in the early years rather than "repayment"). While the WACC for the annuity calculation has some specific Colombian aspects it is based on relatively standard CAPM cost of equity and separate cost of debt estimates.

Where something different arises in Colombia is the way that the RAB is rolled forward between price reviews. A five yearly revaluation process exists, where the volume and price of assets is reviewed to determine a new asset value. Effectively this is a replacement value and while the approach adopted to estimate the value is straight-forward, the use of it with the annuity is not.

To date there have been a couple of revaluations. While the first one increased the value of assets by a small amount the second had a much larger negative impact — more than removing the initial increase. Consequently investors were left considering a reduction in the asset value which had nothing to do with depreciation. While the regulator agreed to an ad hoc adjustment at the time of the large negative revaluation which limited the impact on investors, by only applying it to a small percentage of assets, this was not a change to the underlying rules and so left investors exposed to this risk in the future.

The company receives no compensation for the change in the value of the assets — no additional return is incorporated into the WACC calculation or no additional depreciation charge (which would in any case be difficult with the annuity approach). As such, investors may not be able to expect to earn the required level of return, the WACC is insufficient by itself since it does not take account of returns arising from the asset revaluation. Given that the impact of those revaluations has been negative, investors may be under-rewarded for the risk that they are taking.

As part of the preparation for the next regulatory review for electricity the regulator has suggested moving to a more UK type RAB based system which will address this revaluation risk.

Source: various regulatory documents published by CREG, available to download from http://www.creg.gov.co/html/i_portals/index.php.

Of course, there are other ways in which the RAB could be revalued. For example, different inflation rates could be used — such as a sector specific or asset specific ones. These mimic other forms of replacement cost but also create risks that need to be compensated for in some way — an issue we explore further later in this section. But, in the UK, the RAB is seen more as a repository of

³ It is quite possible that some of the decisions underlying the examples provided in this paper were taken by regulators in the full knowledge of their implications. However, no obvious explanation for these decisions was provided or a transparent acknowledgement of their implications for the companies and/or their investors made to justify the position taken.

⁴ Note, investors expect to earn this return and should have an opportunity to earn this return, but it is not guaranteed. However, it should be the actions of management which determine whether investors earn this level of return, not events outside their control.

⁵ For a discussion of financial and operating capital maintenance see Whittington (1994).

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