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Regulatory accounts - a missed opportunity for effective accountability

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Introduction

This is a short, policy-orientated paper. The contention is that regulatory theory and practice have diverged with respect to the preparation and use of regulatory accounting information, and that this has been to the detriment of effective regulation and accountability. A full, analytical paper is in preparation.

The theory is, perhaps, straightforward. Regulation has a purpose, whether that is to control the abuse of monopoly power by incentive-based price (and quality) controls in situations where there is ineffective competition (either natural monopoly 'pipes and wires' or during transitional periods to effective competition), or as part of an on-going competition policy (*ex ante* to prevent the emergence of abuse or *ex post* to remedy an abuse). Companies are held to account by regulators for their conduct. The corollary is that regulators equally have to be held to account for their actions. Information is the key to these accountabilities, and in practice, financial and accounting information is the conduit through which rational economic actions are given effect. Too much emphasis has been placed on discussing the rational economic actions (alignment of incentives etc), rather than the financial and accounting benchmarks through which the intention and performance of both regulator and regulated can be judged.

Variance analysis

The need for this joint accountability is amply demonstrated by the fact that we are interested in forward looking decisions, and these are necessarily based on 'forecasts'. Outcomes (ie, outturns) will often be different. It is a natural division within this that regulators have the prime responsibility for the 'publicly sanctioned' forecasts (drawing though they do on company forecasts of their business plans as part of the process of 'agreeing' a licence amendment at the end of the periodic review), whilst the regulated company has the prime responsibility for the outcomes.

It is an essential requirement, therefore, to both understanding and accountability, that the 'variance analysis' of forecasts to outcomes is made. From this, attribution of responsibility can be made, distinguishing between controllable and uncontrollable events. The variance analysis also contributes to the learning process by which subsequent periodic reviews are improved. Stability is engendered and this contributes to consistency and to the development of public understanding and consent.

The record, however, is poor, although it is now improving, most notably through the efforts of the Office of Water Services (Ofwat), which has always been the 'market leader' in recognising the integration of public duty and practice with systematic publication of information. The discipline resulting from the government's acceptance of the five principles of good regulation published by the Better Regulation Task Force (transparency, consistency,

proportionality, targeting and accountability) reinforces this trend (1998, revised 2000 and 2003).

One explanation for the poor reporting performance in the past might have been the unwillingness of regulators either to fetter their discretion or to expose themselves to the charge of having made poor forecasts. Opaque methodologies and a lack of integration between economic rationales and their financial and accounting surrogates clearly helps avoid this. Yet it is ironic that the very rationale of incentive regulation is that the regulated prove the regulator wrong by out-performance. Competition and opportunity is an 'exploratory process', and it should have been with an element of regulatory pride that the regulator could report, *ex post*, that their forecasts had been out-performed and additional, super-normal, economic profits earned by the company for the shareholders. Of course, an ill-informed public, viewing profit in its pejorative sense as necessarily an abuse of monopoly power (rather than the possibility of 'good profit' arising from efficiency improvement) will elicit political responses focusing on 'poor regulation' etc; something regulators might think it prudent to avoid. The right answer, of course, is education of the polity, which is achieved by disclosure not suppression of information. The real question to ask then is, 'were the forecasts made the best forecasts that could be made at the time?'; not to ask simply whether the forecasts were wrong.

Practical problems to be addressed

There are a range of specific issues which need to be addressed if the general philosophy contained in these opening remarks is to be put into effect. These are as follows:

Integrating economic and accounting methodology

In general the periodic review process seeks to determine the attributable costs for the period and to allow sufficient revenue to cover the costs. The objective is therefore to set the forecast present value of revenue (PVR^F) equal to the forecast present value of costs (PVC^F).

The general regulatory equation ($PVR^F = PVC^F$) is complicated, however, by a number of factors:

- there may be carry-overs or claw-backs from the past period, either to further encourage out-performance or to penalise contrary behaviour (such as not undertaking capital expenditure for which allowed revenue had been granted, and which has endangered set quality of service or safety standards). The standard aggregate presentation should perhaps be PVC^F + carryover - clawback.

- the costs are determined from a 'truncated' cash flow model which means, in the determination of the closing regulatory book value for the period, that there is discretion, by way of the depreciation charge, to transfer costs between periods.

- the translation of PVC^F into the traditional profit and loss format is little understood, given that there are an infinite number of annual revenue profiles which are consistent with the periodic present value of costs. Profiling PVR^F such that the forecast regulatory accounts show a 'normal' rate of return based on the cost of capital used to discount the costs is the ideal for understandable variance analysis, and integrates well with the regulatory practice of focusing on the initial P_o cut.

- the underlying methodology of price controls (RPI-X) is financial capital maintenance, based on allowing operating expenses for each period plus indexed depreciation charges plus a real rate of return on an indexed capital base. The regulatory accounts may be compiled, however, on a historical cost basis, or even where revaluations occur, the interest charges are nominal. Comparative analysis is therefore difficult, even though over the long term there may be consistency. Equivalent funding through indexed bonds would provde one mechanism for creating comparable accounts for the forecasts and the outturns.

- much confusion is caused by the regulated entity being embedded within group structures, particularly where the reporting basis is different. There is little standardisation as to whether regulatory accounts are published in group accounts or are even readily available by request or on the web.

- the regulators can adopt a variety of economic methodologies which will allow inter-periodic costs to vary. So, for example, overground assets might be depreciated on a current cost basis whilst underground assets are treated as non-depreciable assets with a long term renewals charge, spreading the costs through the operation of a repair and renewals fund. This problem has been compounded by the fact that the regulators have done little to harmonise practice through the joint regulators group, choosing to maintain their discretion and giving each regulator the right to establish the regulatory accounting guidelines (RAGs) they judge appropriate for their sectors. The consequence of this may prove to be a particular problem in an industry with a 'funding gap', such as rail, where the pressure is now to capitalise maintenance and defer current fare and subsidy pressures by borrowing. Another source of confusion is the treatment of the discount at privatisation, which can be written off to give the equivalent of indexed acquisition cost or retained indefinitely, based on indexed replacement cost with an abated regulatory book value.

- Finally, there has been little understanding of the need for consistency in the treatment of regulatory book values, resulting in arbitrary increases or reductions at periodic reviews. Associated with this is the need for clarity on whether regulatory book values are to be based on current market values, since this will affect the risk borne by the shareholders in relation to sunk costs, and thereby the cost of capital.

Guardianship

Such technical problems as these are challenging (but interesting). They can be 'materially' resolved if there is the political and regulatory will to focus on accountability. Too often the answer is that the information is available, but not integrated, so that regulatory accounts come out in historical cost terms, but regulatory capital values in indexed terms are available in other documents related to the periodic review or a performance assessment. Most recognise now that publication is not just 'in the public domain' but must be 'effectively in the public domain'.

Unfortunately, the problem may be exacerbated by growing duties in relation to environmental and social reporting, with the government issuing guidance to 'economic regulators' on such duties. It is unfortunate if reports from regulated companies suggest environmental expenditure as expressions of their corporate social responsibility, rather than simply outputs that they have been contracted to deliver through the licence.

Most importantly, the regulators have to determine a clear policy on the role of regulatory accounts within the general scheme for their effective accountability. Ofgem, for example, appears to have been struggling for a number of years with the choice of whether it is a 'regular' publishing house (like Ofwat) or should style itself on a competition authority, and only collect and reveal information as part of a specific inquiry. I believe that the regulators are guardians of the public interest, and that this requires a proactive stance for the regular publication of integrated information sets. In any event, *ex ante* competition policy has undermined the alternative view.

Case study

An illustration of the impact of variable policies on accounting and financial information follows, drawn from a recent CRI occasional paper (Marchant and Vass 2002) on the transition from current to historical cost reporting for the UK electricity industry's transmission and distribution businesses (comparative figures 2000/2001 and 1999/2000). The results are a cause for concern in building informed public opinion.

The comparative figures selected

The approach in the following tables has been to make two fundamental comparisons, where possible, at the level of detail previously found in the CRI's annual Financial and Operating Review for the transmission and distribution businesses, but in respect of the years 2000/2001 and its comparative base year 1999/2000 only. The two key comparisons are:

- **Historical cost results 2000/2001, and the comparison with 'restated' historical cost prior year figures for 1999/2000.** This is, in effect, the start of a historical cost series based on 1999/2000 (as restated);

- **Current cost results for 1999/2000 (as reported last year), and the comparison with historical cost results (as restated) for 1999/2000.** This is, in effect, a 'variance analysis' for the year 1999/2000 of the effect of the change in the accounting conventions. The most notable effects (as would be expected) is to:

    1. Increase reported operating profits
    2. Reduce the reported value of capital employed
    3. Increase reported returns on capital employed.

For transmission in England and Wales, the comparisons for the National Grid Company have to reflect the change-over to historical cost accounts one year later, and so compare:

- **current cost results for 2000/2001 compared with 1999/2000**

- **current cost results for 2000/2001 compared with historical cost results (as restated) for 2000/2001.** These have been obtained from the historical cost regulatory accounts for 2001/2002, and the comparisons are shown in **Table 3** below.

Summary tables and conclusions

Great Britain (distribution)

The summary **Table 1** has been prepared in aggregate for distribution businesses in Great Britain (distributions of results for individual companies can be explored by using the tables and charts in Occasional Paper 17, which cover all of the regulated companies - and an example chart is shown below).

Table 1: Distribution businesses in Great Britain
Summary profit and loss account, balance sheet and return on capital employed

Summary P/L a/c	**HC 2000/01** £m	**HC 1999/00** £m	**CC 1999/00** £m	**Difference HC – HC 00/01 99/00** £m	**Difference HC – CC 99/00 99/00** £m	**HC Unit costs 2000/01** £ MWh
Turnover	3,528.9	4,328.7	4,328.7	-799.8	0.0	11.53
less operating costs	1,962.2	2,558.0	3,063.0	-595.8	-505.0	6.41
equals operating profit	1,566.7	1,770.7	1,265.7	-204.0	505.0	5.12
Summary balance sheet						
Tangible fixed assets	12,766.6	12,529.9	16,820.1	236.7	-4,290.2	
Other assets/liabilities	-1,009.7	-1,174.2	-1,218.3	164.5	44.1	
equals capital employed	11,756.9	11,355.7	15,601.8	401.2	-4,246.1	
Return on capital employed	**13.33%**	**15.59%**	**8.11%**	**-2.26% points**	**7.48% points**	

The summary table shows:

- a major reduction in revenue of £799.8m for 2000/2001 compared with 1999/2000. This is the result of the P_0 cuts introduced by the regulator in 2000/2001 as part of the periodic review of the distribution businesses (see ***distribution price controls*** below and **Table 2**);

- that this revenue reduction was offset, however, by a sharp reduction in 'other' operating costs between the years of £595.8m. This kept the reduction in profit between the two years down to £204m, and consequently the reduction in ROCE to only 2.26 percentage points, that is, a reduction from 15.59% in 1999/2000 to 13.33% in 2001/2000;

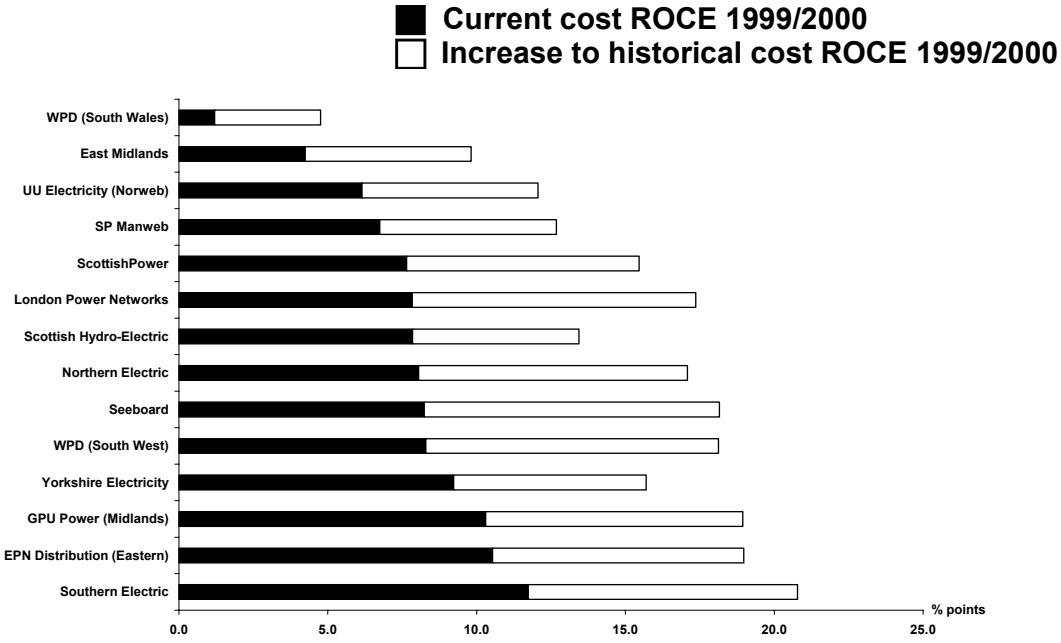
- a £505m reduction in accounted operating costs in 1999/2000, consequent on moving from current to historical cost accounting. This results predominantly from basing depreciation charges on the historical cost of assets rather than their current value;

- a £505m increase in restated accounted profits for 1999/2000, resulting from the change in accounting policies;

- a £4246m reduction in the value of capital employed shown in the balance sheet at March 31st 2000, given assets were restated at historical acquisition costs, rather than held at current cost;

- a sharp increase in return on capital employed (ROCE) from 8.11% to 15.59% (7.48 percentage points) for 1999/2000 as a result of the change in accounting policy both increasing accounted profits (the numerator of ROCE) and reducing the accounted capital employed (the denominator of ROCE). **Chart 1** shows the increase in ROCE for individual distribution companies.

Chart 1: % point increase current cost to historical cost ROCE 1999/2000



- Distribution price controls

For information, and to explain the reduction in revenue, the following sets out some details of the periodic review settlement in relation to X factors and P_0 cuts. For electricity distribution companies operating in England and Wales, the price control in 1999/2000 was RPI-3. The X factor for 1999/2000 was, therefore, 3 (until March 2000). For the electricity distribution companies operating in Scotland (ScottishPower and Scottish and Southern Energy), the price control was RPI-2 in 1999/2000.

The current price control, introduced on 1 April 2000 for a period of five years, resulted in an initial reduction in 2000/2001 of distribution prices in England and Wales by between 19% and 33%, and a further annual reduction of 3% below the rate of inflation until March 2005. In Scotland, the existing price control proposed initial reductions in distribution prices of 13% for ScottishPower and of 4% for Hydro-Electric (Scottish and Southern Energy), followed by an annual reduction of 3% below the rate of inflation until March 2005.

Table 2: Electricity distribution price controls

Distribution companies	X factor (1999/2000)	P_0 in 2000/2001	X factor (2001 – 2005)
Aquila (Midlands) formerly GPU Power	3	23	3
East Midlands	3	23	3
EPN Distribution (Eastern)	3	28	3
London Power Networks	3	27	3
Northern Electric (NEDL)	3	24	3
Seeboard	3	33	3
Southern Electric	3	19	3
SP Manweb	3	21	3
UU Electricity (Norweb)	3	27	3
WPD (South Wales)	3	26	3
WPD (South West)	3	20	3
Yorkshire Electricity	3	23	3
ScottishPower	2	13	3
Scottish Hydro-Electric	2	4	3

Great Britain (transmission)

- England and Wales (NGC)

For transmission in Great Britain, given NGC has switched to historical cost regulatory accounts one year later than the distribution businesses and the Scottish transmission businesses, an equivalent summary comparative exercise for National Grid in England and Wales has been prepared, but showing current cost changes between the years 1999/2000 and 2000/2001, and the move from current cost to historical cost in the year 2000/2001. This is shown in **Table 3**.

Table 3: Transmission business in England and Wales (NGC)

Summary P/L a/c	**HC 2000/01** £m	**CC 2000/01** £m	**CC 1999/00** £m	**Difference CC – CC 00/01 99/00** £m	**Difference HC – CC 00/01 00/01** £m	**HC Unit costs 2000/01** £ MWh
Turnover	1,195.4	1,195.4	1,208.2	-12.8	0.0	3.96
less operating costs	709.2	866.9	844.0	22.9	-157.7	2.35
equals operating profit	486.2	328.5	364.2	-35.7	157.7	1.61
Capital employed	7,239.0	9,390.0	8,775.2	614.8	-2151.0	
Return on capital employed	**6.72 %**	**3.50 %**	**4.15%**	**-0.65% points**	**3.22% points**	

- Scotland

For Scotland, the summary **Table 4** for the transmission businesses is on the same basis as for the Great Britain distribution businesses.

Table 4: Transmission business in Scotland

Summary P/L a/c	HC 2000/01 £m	HC 1999/00 £m	CC 1999/00 £m	Difference HC – HC 00/01 99/00 £m	Difference HC – CC 99/00 99/00 £m	HC Unit costs 2000/01 £ MWh
Turnover	199.3	200.2	200.2	-0.9	0.0	4.46
less operating costs	77.2	83.0	105.9	-5.8	-22.9	1.73
equals operating profit	122.1	117.2	94.3	4.9	22.9	2.73
Capital employed	481.3	474.8	783.9	6.5	-309.1	
Return on capital employed	**25.37 %**	**24.68 %**	**12.03%**	**0.68% points**	**12.65% points**	

- Great Britain

Given the different year of change-over for transmission businesses in Scotland compared with England and Wales, the only comparable summary results for transmission businesses in Great Britain overall are as follows in **Table 5** (and noting that 1999/2000 is in current cost and 2000/2001 in historical cost):

Table 5: Transmission business in Great Britain

Summary P/L a/c	HC 2000/01 £m	CC 1999/00 £m
Turnover	1394.7	1408.4
less operating costs	786.4	949.9
equals operating profit	608.3	458.5
Capital employed	7,720.3	9,559.4
Return on capital employed	**7.88 %**	**4.80 %**

Northern Ireland (transmission and distribution)

For Northern Ireland **Table 6** is the equivalent summary table but for transmission and distribution combined.

Table 6: Transmission and distribution businesses in Northern Ireland

Summary P/L a/c	HC 2000/01 £m	HC 1999/00 £m	CC 1999/00 £m	Difference HC – HC 00/01 99/00 £m	Difference HC – CC 99/00 99/00 £m	HC Unit costs 2000/01 £ MWh
Turnover	165.1	159.5	159.5	5.6	0.0	21.68
less operating costs	97.8	94.6	110.0	3.2	-15.4	12.84
equals operating profit	67.3	64.9	49.5	2.4	15.4	8.84
Capital employed	510.6	443.9	587.8	66.7	-143.9	
Return on capital employed	**13.18%**	**14.62%**	**8.42%**	**-1.44% points**	**6.20% points**	

The apparent dramatic improvement in operating performance based on return on capital employed, purely from a change in accounting policies to a method inconsistent with the underlying regulatory control methodology, is hopefully self-evident. The policy implications are for discussion!

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