

UR-150 D1: Cost Risk Sharing Mechanisms

Introduction

1. This paper gives an explanation of the incentive design that the Competition Commission (CC) has put forward under heading D1 in its provisional determination.
2. We begin with a reminder of the UR's FD proposals, before outlining the key differences that D1 introduces.

Capex

UR FD

3. The UR's FD proposed a rolling RAB adjustment mechanism, in which forecast expenditure is removed from the RAB and replaced by NIE T&D's actual expenditure after a fixed lag of five years.
4. We can illustrate the rewards and penalties on offer to NIE T&D using two simple examples in which:
 - NIE T&D under-spends in year 3 of RP5; and
 - NIE T&D over-spends in year 4 of RP5.
5. The rules here are that NIE T&D keeps the depreciation and return/cost of capital on unspent capex until year 3 of RP1 before the RAB is adjusted downwards to reflect actual spend, while NIE T&D will not be able to charge customers for the depreciation and return on overspent capex for a similar five-year period.

Table 1: Reward for under-spending in year 3 of RP5

Year	1	2	3	4	5	6	7	8	9	10
Allowance	1,000	1,000	1,000	1,000	1,000					
Actual spend	1,000	1,000	900	1,000	1,000					
Reward			7.10	6.898	6.85	6.73	6.61	0	0	0

Table 2: Penalty for over-spending in year 4 of RP5 (£)

Year	1	2	3	4	5	6	7	8	9	10
Allowance	1,000	1,000	1,000	1,000	1,000					
Actual spend	1,000	1,000	1,000	1,100	1,000					
Penalty				(7.10)	(6.98)	(6.85)	(6.73)	(6.61)	0	0

6. A good way of summarising the effect of this incentive design is to calculate how much the rewards and penalties over five years sum to in present value terms and to compare this to the scale of the under- and over-spending (i.e. £100 in our stylised example). This calculation shows that NIE T&D keeps/suffers around £30 for every £100 of under- or over-spending – i.e. the 'incentive rate' is 30%.

CC PD

7. The CC's provisional determination is that the incentive rate should be 50%. There are a number of ways in which the CC can set NIE T&D's price control to achieve this sharing. One way, which may act as a helpful point of comparison, is to increase the period in which forecast capex remains in the RAB before it is replaced by actual capex to just over nine years.

8. Our simple examples now look as follows.

Table 3: Reward for under-spending in year 3 of RP5

Year	1	2	3	4	5	6	7	8	9	10	11	12	13
Allowance	1,000	1,000	1,000	1,000	1,000								
Actual spend	1,000	1,000	900	1,000	1,000								
Reward			7.10	6.898	6.85	6.73	6.61	6.49	6.36	6.24	6.12	1.27	0

Table 4: Penalty for over-spending in year 4 of RP5 (£)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13
Allowance	1,000	1,000	1,000	1,000	1,000								
Actual spend	1,000	1,000	1,000	1,100	1,000								
Penalty				(7.10)	(6.98)	(6.85)	(6.73)	(6.61)	(6.49)	(6.36)	(6.24)	(6.12)	(1.27)

OpexUR FD

9. The UR's FD provided for a five-year rolling incentive mechanism for opex, in which NIE T&D would keep any permanent opex out-performance it is able to generate for five years before its efficiencies are passed on to customers.

10. We again illustrate the rewards and penalties on offer to NIE T&D in the UR's FD using two simple examples in which:

- NIE T&D makes a permanent reduction to its costs in year 3 of RP5; and
- NIE T&D suffers a permanent increase in its costs in year 4 of RP5.

11. The calculations assume that NIE T&D's opex allowance is reset to actual expenditure at the start of RP6, in line with the UR's practice in all previous price reviews. The CC notes in its PD that it is possible to envisage other rules being used. Further analysis of this point is set out in a separate annex A.

Table 5: Reward for under-spending in year 3 of RP5

Year	1	2	3	4	5	6	7	8	9	10
Allowance	1,000	1,000	1,000	1,000	1,000					
Actual spend	1,000	1,000	900	900	900					

Reward			100	100	100	100	100	0	0	0
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Table 6: Penalty for over-spending in year 4 of RP5

Year	1	2	3	4	5	6	7	8	9	10
Allowance	1,000	1,000	1,000	1,000	1,000					
Actual spend	1,000	1,000	1,000	1,100	1,100					
Penalty				(100)	(100)	0	0	0	0	0

CC PD

12. The CC's PD proposes a scheme in which differences between allowed and actual expenditure are split between company and customers using a fixed 50:50 sharing rule. The rewards and penalties for out- and under-performance will be as follows.

Table 7: Reward for under-spending in year 3 of RP5

Year	1	2	3	4	5	6	7	8	9	10
Allowance	1,000	1,000	1,000	1,000	1,000					
Actual spend	1,000	1,000	900	900	900					
Reward			50	50	50	0	0	0	0	0

Table 8: Penalty for over-spending in year 4 of RP5

Year	1	2	3	4	5	6	7	8	9	10
Allowance	1,000	1,000	1,000	1,000	1,000					
Actual spend	1,000	1,000	1,000	1,100	1,100					
Penalty				(50)	(50)	0	0	0	0	0

Discussion

13. The preceding analysis shows that the CC's D1 proposals represent a significant change to the UR's FD proposals. The key points to note are as follows:
- a) in relation to capex –
 - i. the CC has increased significantly the size of the rewards and penalties that NIE T&D takes when it under- or over-spends against its capex allowance;
 - b) in relation to opex –
 - ii. the CC has at least halved the financial incentives that NIE T&D has to out-perform its RP5 opex allowance;
 - iii. it has re-introduced a timing bias, in that NIE T&D will have relatively stronger incentives to make efficiencies in the early years of RP5 but relatively weak incentives to make efficiencies at the end of RP5 (which could manifest itself as an

incentive to hold efficiencies back at the end of the period and make them instead at the start of RP6 when the rewards are greater); and

- iv. it is also proposing for the first time to share between the company and customers any losses that NIE T&D suffers as a result of over-spending against allowance.

Annex A

- 1.The CC's PD criticises a version of this paper that was submitted to the CC in September on the grounds that our analysis assumes wrongly that NIE T&D's opex allowance will be reset to NIE T&D's actual expenditure at the start of RP6.
- 2.The CC suggests that the UR might from now on set NIE T&D's opex allowance in line with GB benchmarks, thus severing the direct link between NIE T&D's allowance and NIE T&D's actual costs.
- 3.It is actually beyond the CC's terms of reference to determine how the UR should set NIE T&D's RP6 opex allowance. We think it is more logical to assume that there will be some feed through between NIE T&D's actual expenditure and its opex allowance, principally because: (a) all previous UR price controls have contained such a link; and (b) there isn't (yet) a real-life example of a UK regulator that sets opex allowances in the way that the CC describes.
- 4.We can nevertheless describe the incentives that the CC envisages using our worked examples.

Table 2: Reward for under-spending in year 3 of RP5

Year	1	2	3	4	5	6	7	8	9	10
Allowance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Actual spend	1,000	1,000	900	900	900	900	900	900	900	900
Reward			50	50	50	50	50	50	50	50

Table 3: Penalty for over-spending in year 4 of RP5

Year	1	2	3	4	5	6	7	8	9	10
Allowance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Actual spend	1,000	1,000	1,000	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Penalty				(50)	(50)	(50)	(50)	(50)	(50)	(50)

- 5.In a world where changes in NIE T&D's costs have no implications for NIE T&D's opex allowance, every £100 or permanent cost reduction of cost increase, at the margin, earns NIE T&D a £50 a year reward or penalty in perpetuity.
- 6.This would eliminate the concerns we have about a weakening of incentives and about timing bias.