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Project	**Rate-regulated Activities**		
Paper topic	Measurement of regulatory assets		
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Purpose of this paper

1. The purpose of this paper is to continue developing the underlying basis for a new accounting model (the model) for rate-regulated activities. In particular this paper explores measurement issues to help identify factors to support future recommendations for the selection of a measurement basis for regulatory assets.

2. For our analysis, we focus on a regulatory asset that arises when an entity incurs costs as it carries out a required activity delivering regulated goods or services to customers and the regulatory agreement gives the entity a right to increase the rate charged to customers to the extent needed to recover those costs. We consider a simple 'base case', which is consistent with the straightforward examples discussed in the Board's June 2017 meeting. We then modify the fact patterns to consider various situations that could influence the selection of a measurement basis.

3. We are not asking the Board to select a measurement basis in this meeting. Instead, we are exploring factors to consider when developing measurement proposals for the model. In future meetings we will discuss other measurement aspects of regulatory assets arising from different circumstances, as well as measurement aspects of regulatory liabilities.

Structure of this paper

4. This paper is structured as follows:

   (a) Introduction (paragraphs 5-9);

   (b) Characteristics of a regulatory asset (paragraphs 10-16);

   (c) Expected timing of reversal and time value of money (paragraphs 17-45):

      (i) Rate compensates for time value of money: no more, no less (paragraphs 21-28);

      (ii) Rate does not fully compensate for time value of money (paragraphs 29-34); and

      (iii) Rate compensates for time value of money plus a return (paragraphs 35-45).

   (d) Further issues to consider (paragraphs 46-55):

      (i) Accruing interest when billing is delayed (paragraphs 46-53): and

      (ii) Short-term reversals (paragraphs 54-55).

   (e) Questions for the Board (paragraph 56).

Introduction

5. In this project, we have been using ‘defined rate regulation’ as a label for a form of economic regulation established through a formal regulatory framework that imposes limitations on entry into an industry (and on exit from it) and that:

   (a) is binding on both the entity and the rate regulator; and

   (b) establishes a basis for setting the regulated rate (price) chargeable by the entity to its customers for the transfer of specified goods and/ or services that comply with minimum quality levels or other service requirements.

6. The basis for setting the rate includes a rate-adjustment mechanism that originates, and subsequently reverses, temporary differences that arise when the

regulated rate in one period includes amounts intended to compensate the entity for specified activities the entity carries out in a different period.[1] When the entity carries out the specified activities before the related amount is included in the rate, the entity has a right to include compensation for the amount in future bills to customers. It includes the amount in future bills by charging a higher rate than would have otherwise been determined by the rate regulator as the charge for the goods or services delivered in the future period. Consequently, there is a direct cause-and-effect relationship between the entity's **past** fulfilment of regulatory requirements and the entity's (**present**) right to charge a higher rate than would have otherwise been determined by the rate regulator as the charge for the goods or services delivered to customers in a future period.

7. In its June 2017 meeting, the Board discussed five examples that illustrate common types of temporary differences and related regulated rate adjustments.[2] The examples enabled the Board to review the principles of the model and its basic application for recognising originating temporary differences and their reversals in straightforward situations in which:

   (a) there is no uncertainty that the regulatory asset or regulatory liability exists;

   (b) there is a high probability that the regulatory asset or regulatory liability will result in an inflow or outflow of economic benefits;

   (c) the value of the economic benefit can be measured with a high level of certainty;

   (d) the time value of money has no material effect; and

   (e) the regulatory agreement gives the entity a right to charge a regulated rate that is intended to recover its 'allowable costs' but not to earn a return or make a profit.

[1] The rights/obligations arising from the rate-adjustment mechanism are consumed/fulfilled as the entity includes the rate increase/decrease in a future regulated rate that is charged to customers on the future delivery of goods or services.

[2] See Board agenda paper 9B: Rate-regulated Activities—*Rate adjustment examples*, June 2017.

8. In the July 2017 Board meeting, we removed the simplifications listed in paragraphs 7(a)-(c) so that the Board could consider the approach to decisions about recognition of regulatory assets and regulatory liabilities if there is uncertainty about the existence, outcome or measurement of the asset or liability.

9. In this paper, we begin to consider the approach to decisions about measurement of regulatory assets. To do this, we reinstate the certainty conditions listed in paragraphs 7(a)-(c). This means that the pattern and timing of billings to customers, and the related cash flows, follow the pattern estimated in the calculation of the regulated rate charged to customers. Instead we remove the conditions in paragraphs 7(d)-7(e) to consider how the time value of money and an entitlement to earn a return might influence the selection of a measurement basis.

Characteristics of a regulatory asset

10. In this paper, we focus on a regulatory asset that arises when an entity incurs costs as it carries out a required activity delivering goods or services to customers and the regulatory agreement gives the entity a right to increase the rate charged to customers to the extent needed to recover those costs. We will discuss other measurement aspects of regulatory assets arising from different circumstances, as well as measurement aspects of regulatory liabilities at a future meeting.

11. We remind the Board that, in its February 2017 meeting, the Board tentatively decided that the model should supplement existing IFRS Standards. This means that other IFRS Standards will be applied before the model. As a result, if the regulatory agreement gives the entity a right to increase the rate charged to customers to the extent needed to recover a group of costs incurred, any portion of those costs that is already covered by an existing Standard will not be accounted for using the model. Instead, those costs will be recognised and measured using the relevant existing Standard. The model will account only for the entity's right to recover any portion of the costs incurred not covered by an existing Standard. To demonstrate this, we use a 'base case' example—Example 1.

Example 1—base case

12. The regulatory agreement gives Entity W the right to charge a regulated rate to customers intended to reimburse specified actual input costs incurred for delivering regulated services to customers (allowable costs). During 20X1, Entity W incurs CU100,000 of costs above its 'routine' level of allowable costs. The rate regulator approves these costs as being 'allowable' and confirms the regulatory agreement gives Entity W the right to increase the rate charged to customers to the extent needed to recover those costs. However, Entity W is not entitled to recover the full amount in 20X1. Instead, the entity has the right to increase the rate to recover the CU100,000 costs in five equal instalments of CU20,000, starting in 20X1. Spreading the cost to customers over five years enables the rate regulator to improve the stability of rates for customers.

13. In this example, the assumptions in paragraph 7 apply. This means that the time value of money has no material effect and the billing amounts and related cash flows are certain. Consequently, by the end of 20X5, Entity W recovers the CU100,000 costs incurred, no more or no less.

14. At the end of 20X1, the entity has two assets related to its right to increase the rate charged to customers to the extent needed to recover the CU100,000 costs incurred:

    (a) an unconditional right to CU20,000 to receive cash from customers—a trade receivable. This is the amount that the entity included in bills to customers during 20X1. This receivable, and the related amount billed to customers, is accounted for using IFRS 9 *Financial Instruments* and IFRS 15 *Revenue from Contracts with Customers*.

    (b) an unconditional right to increase the rate charged to customers to the extent needed to recover the remaining CU80,000 costs incurred—a regulatory asset. The regulatory asset is not an unconditional right to receive cash because the reimbursement of those costs is conditioned on something other than the passage of time; it requires some future performance by the entity, ie it will become a receivable when the entity is entitled to include the additional amount in the rate charged for services delivered during 20X2-20X5.

15. Using the model, the entity will, at 31 December 20X1, recognise a regulatory asset of CU80,000, together with the related regulated rate adjustment income in profit or loss. The regulatory asset will reverse over the four years 20X2-20X5 as it is consumed by Entity W including CU20,000 each year in its bills to customers.

16. The nature of the right to increase the rate charged to customers to the extent needed to recover the remaining costs incurred seems similar in some respects to that of a contract asset accounted for using IFRS 15.[3] In developing IFRS 15, the Board decided that, although the trade receivables and contract assets may arise from the same source and are similar in nature, they should be presented separately. The Board noted that making the distinction between a contract asset and a receivable is important because doing so provides users of financial statements with relevant information about the risks associated with the entity's rights in a contract. That is because although both would be subject to credit risk, a contract asset is also subject to other risks, for example, performance risk. By applying existing IFRS Standards before applying the model, the distinction is also made between trade receivables, contract assets and regulatory assets.

Expected timing of reversal and the time value of money (TVM)

17. The measurement of the regulatory assets will need to reflect:

    (a) the expected timing of reversal and the time value of money (paragraphs 21-34); and

    (b) the right of the entity to charge a rate intended provide a profit or return on its investment in the assets used to supply the regulated goods or services (paragraphs 35-45).

18. In the base case—example 1, the timing of reversal of the regulatory asset is certain and the risks associated with the time lag between the origination and reversal of the regulatory asset, together with the time value of money, do not

[3] Appendix A of IFRS 15 defines a contract asset as 'An entity's right to consideration in exchange for goods or services that the entity has transferred to a customer when that right is conditioned on something other than the passage of time (for example, the entity's future performance).

have a material effect. In such a case, the amount of the costs incurred that originated the regulatory asset approximately equals the present value of the related cash flows resulting from billing those amounts to customers using the increased rate.

19. Consequently, recognising and measuring the regulatory asset initially at the nominal amount of the future cash flows is assumed to provide a faithful representation of the entity's unconditional right to increase the rate charged to customers to the extent needed to recover the costs incurred. Similarly, reversing the regulatory asset by continuing to measure it at the same amount, less amounts billed as goods or services are delivered and charged at the higher rate, is assumed to provide a faithful representation of the consumption of the asset the effects on the amount and timing of future related cash flows.

20. In the following section, we explore how changing the assumptions about the time value of money could influence the way that the regulatory asset is measured both initially and subsequently.

Rate compensates for time value of money: no more, no less

21. When the regulation defers the recovery of costs over a period in which the time value of money is material, the regulatory agreement typically gives the entity the right to charge customers a rate that provides compensation for the effects of the deferral, reflecting the time value of money, the cost of borrowing and the risks associated with the related cash flows (the regulatory interest rate). The regulatory agreement usually specifies either the basis for identifying the interest rate to use or specifies the actual rate. Commonly, the regulatory interest rate is established by reference to a market rate for a (financial) asset with a similar repayment period and risk profile. The regulatory interest rate used is commonly fixed for the duration of the reversal period or may be subject to change when the next rate review is completed.

22. If the regulatory interest rate is a reasonable proxy for the prevailing interest rates in the relevant market, using that regulatory interest rate to discount back the stream of expected billing amounts relating to the regulatory asset would result in a present value approximating the actual amount of costs incurred that originated

the regulatory asset. In such cases, the regulatory interest rate specified in the regulatory agreement (approximately) compensates the entity for the time value of money and the risks associated with the related cash flows, no more or no less. In these cases, we think that using the regulatory interest rate to discount back the stream of expected billing amounts would faithfully represent the value of the regulatory asset at initial recognition and subsequently.

Example 2—rate compensates for time value of money

23. The facts are the same as in the base case—example 1 (paragraph 12), except that:

    (a) the time value of money has a material effect; and

    (b) in addition to the CU20,000 included in the rate charged to customers each year, Entity W has the right to include interest at the regulatory interest rate of 2% each year on the outstanding balance of the incurred costs not yet recovered through the rate.

24. Throughout this paper, we assume 2% is the prevailing market interest rate that reflects the risks associated with the cash flows related to the right to increase the rate, and all cash flows occur on the last day of each year.[4] The 2% compensates the entity for the time value of money and the risks associated with the related cash flows, but does not provide any additional return for investors.

25. At the end of 20X1, Entity W:

    (a) has an unconditional right to receive cash for the CU20,000 billed during 20X1; and

    (b) an unconditional right to include CU20,000 plus 2% interest in amounts billed each year during 20X2-20X5, intended to recover the remaining CU80,000 costs incurred.

26. Using the regulatory interest rate of 2% to discount back to the end of 20X1 the cash inflows from the four annual instalments to be billed in 20X2-20X5 gives a present value of CU80,000. If the regulatory asset was to be measured at this present value, which equals the CU80,000 actual costs incurred, the regulatory

[4] The risks associated with the cash flows include such things as the time delay, credit profile of customers, and other features of the regulatory agreement.

asset would reverse over the next four years as the time value of money unwinds and the entity consumes its right to charge the higher rate that includes CU20,000 plus 2% interest each year in amounts billed to customers, as follows:[5]

Year to 31 December	**20X1 CU000**	**20X2 CU000**	**20X3 CU000**	**20X4 CU000**	**20X5 CU000**
Regulatory asset					
Opening asset balance	0.0	80.0	60.0	40.0	20.0
Initial recognition	80.0	0	0	0	0
Included in amounts billed	0	(21.5)	(21.1)	(20.8)	(20.4)
Interest income at 2%	0	1.5	1.1	0.8	0.4
Closing asset balance	**80.0**	**60.0**	**40.0**	**20.0**	**0.0**

27. If the Board decides to measure the regulatory asset using the present value of the future cash flows discounted using the 2% regulatory interest rate when the asset originates, Entity W would reflect, in its financial statements at 31 December 20X1:

(a) the CU100,000 costs incurred in profit or loss;

(b) the CU20,000 billed to customers during the year as revenue in profit or loss (initially recognised as a receivable and then collected in cash at the end of 20X1), and

(c) the regulatory asset of CU80,000. The regulatory asset reverses during each year 20X2-20X5 as Entity W includes the CU20,000 plus 2% interest in its bills to customers.

Year to 31 December	**20X1 CU000**	**20X2 CU000**	**20X3 CU000**	**20X4 CU000**	**20X5 CU000**	**Total CU000**
Recognising the regulatory asset at its present value of CU80,000 using a discount rate of 2%						
Revenue (amounts billed)	20	21.5	21.1	20.8	20.4	103.8
Regulated rate adjustment: income/ (expense)	80	(20)	(20)	(20)	(20)	0
Operating expenses	(100)	(0)	(0)	(0)	(0)	(100)
Profit/ (Loss)	0	1.5	1.1	0.8	0.4	3.8
Regulatory (liability)/ asset	80	60	40	20	0	

[5] Amounts are rounded in this and subsequent examples to no more than one decimal place.

28. In this example, the 'profit' of CU3,800 reflects the interest earned on the outstanding regulatory asset. Because the interest is included in amounts billed to customers, it is recognised within revenue using IFRS 15. We will discuss with the Board whether to require separate presentation or disclosure of the interest in a future meeting when we consider presentation and disclosure matters more broadly.

Rate does not fully compensate for time value of money

29. In limited situations, the time value of money may be material but the regulatory agreement does not entitle an entity to charge a rate that fully compensates it for the time value of money. In such circumstances, although the entity has a right to increase the rate charged to customers to the extent needed to recover the costs incurred—and so has a regulatory asset—the present value of the resulting cash inflows arising from that right is less than the value of the costs incurred. This means that the entity does not fully recover the costs incurred. Consequently, the Board could consider requiring an entity to recognise a loss in such circumstances.

30. If a loss is to be recognised, it could be measured by discounting the cash inflows resulting from the regulatory asset to their present value on initial recognition of the regulatory asset. In identifying an appropriate discount rate to use, we suggest that an entity should consider the prevailing interest rates in the relevant market and the risks associated with the cash flows that would result from a separate financing transaction on similar terms with its customers. This would be consistent with the approach used in IFRS 15 for trade receivables and contract assets.[6]

Example 3—rate does not compensate for time value of money

31. The facts are the same as in example 2 (paragraphs 23-24), except that Entity W has a right to include only the CU100,000 actual costs incurred during 20X1 in the rate billed to customers, on a straight-line basis over five years, ie CU20,000 per year, starting in 20X1. This means that, at the end of 20X1, Entity W:

[6] See the requirements in paragraphs 60-65 of IFRS 15 for adjusting the transaction price when that price includes a significant financing component.

(a) has an unconditional right to receive cash for the CU20,000 billed during 20X1; and

(b) an unconditional right to include CU20,000 in amounts billed each year during 20X2-20X5, to recover the remaining CU80,000 costs incurred, with no interest.

32. Using the 2% prevailing market interest rate when the regulatory asset originated to discount the four remaining annual instalments of CU20,000 to be billed in 20X2-20X5 back to the end of 20X1 gives a present value of CU76,200. Consequently, although the entity has a right to include in the rate to be charged in 20X2-20X5 the remaining CU80,000 costs incurred, the present value of the cash flows intended to recover those costs is CU3,800 less than the actual costs incurred. If the regulatory asset was to be measured at this present value, instead of the CU80,000 actual costs incurred, the regulatory asset would reverse over the next four years as the time value of money unwinds and as the entity consumes its right to increase the rate to include CU20,000 each year in amounts billed to customers, as follows.

Year to 31 December	**20X1**	**20X2**	**20X3**	**20X4**	**20X5**
	CU000	**CU000**	**CU000**	**CU000**	**CU000**
Regulatory asset					
Opening asset balance	0.0	76.2	57.7	38.8	19.5
Initial recognition	76.2	0	0	0	0
Included in amounts billed	0	(20.0)	(20.0)	(20.0)	(20.0)
Interest income at 2% (unwinding TVM)[7]	0	1.5	1.1	0.8	0.4
Closing asset balance	**76.2**	**57.7**	**38.8**	**19.5**	**0.0**

33. If the Board decides to measure the regulatory asset at the present value of the future cash flows using the prevailing market interest rate when the regulatory asset originated, Entity W would reflect, in its financial statements at 31 December 20X1:

(a) the CU100,000 costs incurred;

[7] Differences in the reconciliations of opening and closing balances in this and other examples are caused by rounding amounts to a single decimal place.

(b) the CU20,000 billed to customers during the year as revenue in profit or loss (initially recognised as a receivable and then collected in cash at the end of 20X1); and

(c) the regulatory asset of CU76,200. For ease of presentation, we show each element of the reversal of the regulatory asset as a separate line item in profit or loss:

Year to 31 December	**20X1 CU000**	**20X2 CU000**	**20X3 CU000**	**20X4 CU000**	**20X5 CU000**	**Total CU000**
Recognising the regulatory asset at its present value of CU76,200 using a discount rate of 2%						
Revenue (amounts billed)	20	20	20	20	20	100
Regulated rate adjustment: income/ (expense)	76.2	(20)	(20)	(20)	(20)	(3.8)
Regulated rate adjustment: interest income (unwinding of TVM @ 2%)	0	1.5	1.1	0.8	0.4	3.8
Operating expenses	(100)	(0)	(0)	(0)	(0)	0
Profit/ (Loss)	**(3.8)**	**1.5**	**1.1**	**0.8**	**0.4**	**0**
Regulatory (liability)/ asset	76.2	57.7	38.8	19.5	0	

34. If, instead, the Board decides to measure the regulatory asset at the present value of the future cash flows using the regulatory interest rate when the regulatory asset originated, 0% in this example, Entity W would reflect, in its financial statements at 31 December 20X1, the regulatory asset at CU80,000. The regulatory asset reverses during each year 20X2-20X5 as Entity W consumes its right to charge the higher rate by including the CU20,000 in the amounts billed to customers.

Year to 31 December	**20X1 CU000**	**20X2 CU000**	**20X3 CU000**	**20X4 CU000**	**20X5 CU000**	**Total CU000**
Recognising the regulatory asset at its present value of CU80,000 using a discount rate of 0%						
Revenue (amounts billed)	20	20	20	20	20	100
Regulated rate adjustment: income/ (expense)	80	(20)	(20)	(20)	(20)	0
Operating expenses	(100)	(0)	(0)	(0)	(0)	(100)
Profit/ (Loss)	0	0	0	0	0	0
Regulatory (liability)/ asset	80	60	40	20	0	

Rate compensates for time value of money plus a return

35. For amounts to be recovered over a longer period, defined rate regulation typically gives the entity the right to charge customers a rate that provides a return for equity investors on amounts invested, as well as compensating the entity for the time value of money. Providing a rate of return that reflects the risks faced by investors in a rate-regulated entity (a regulatory return rate) is considered by many rate regulators to be essential to facilitate continuing investment in the infrastructure which supports the well-being of both customers and the wider economy.[8]

36. Typically, rate regulators use a weighted average cost of capital (WACC) as the basis of the regulatory return rate. In some cases, an estimate of the entity's actual WACC may be used. Alternatively, the rate regulator may use a 'benchmarked' or 'deemed market WACC' to reflect the different exposures to risks of different entities within the rate-regulated sector. The risks could include the level of competition (if any), the nature and economic life of the assets used to deliver the regulated goods or services, demand variability and the effectiveness of the rate-setting mechanism.

37. If the calculation of the amounts to be included in the rate charged to customers to recover costs incurred includes a return, as well as compensation for the time value of money, the Board will need to consider how the model should account for this return. There are two significant questions to answer:

    (a) should any difference be recognised as a gain in profit or loss on 'day one' or should it be recognised through profit or loss over time; and

    (b) if any gain is recognised over time, how should the pattern of recognition be determined?

Example 4—rate compensates for time value of money plus a return

38. The facts are the same as in example 2 (paragraphs 23-24), except that Entity W has a right to include 'interest' at the regulatory return rate of 3.7% each year on the outstanding balance of the costs not yet recovered through the rate. The 3.7%

[8] Source: UK Regulators Network (UKRN) Cost of Capital—Annual Update Report, May 2017.

is intended to compensate the entity for the time value of money and the risks associated with the related cash flows (which would require an interest rate of 2%) and also provides a return for investors.

39. Using the prevailing market interest rate of 2% to discount the four remaining annual instalments of CU20,000 to be billed in 20X2-20X5 back to the end of 20X1 gives a present value of CU83,200. If the regulatory asset was to be measured at this present value, instead of the CU80,000 actual costs incurred, the regulatory asset would reverse over the next four years as the time value of money unwinds and as the entity consumes its right to charge the higher rate by including CU20,000 plus interest at 3.7% each year in amounts billed to customers, as follows.

Year to 31 December	**20X1**	**20X2**	**20X3**	**20X4**	**20X5**
	CU000	**CU000**	**CU000**	**CU000**	**CU000**
Regulatory asset					
Opening asset balance	0.0	83.2	61.9	41.0	20.3
Initial recognition	83.2	0	0	0	0
Included in amounts billed	0	(22.8)	(22.0)	(21.5)	(20.7)
Interest income at 2%	0	1.5	1.1	0.8	0.4
Closing asset balance	**83.2**	**61.9**	**41.0**	**20.3**	**0.0**

40. If the Board decides to measure the regulatory asset at the present value of the future cash flows using the prevailing market interest rate when the regulatory asset originated, Entity W would reflect, in its financial statements at 31 December 20X1, the CU100,000 costs incurred, the CU20,000 revenue billed to customers during the year (which will be collected in cash at the end of 20X1), and the regulatory asset of CU83,200. For ease of presentation, we show each element of the reversal of the regulatory asset as a separate line item in profit or loss: as follows:

Year to 31 December	20X1 CU000	20X2 CU000	20X3 CU000	20X4 CU000	20X5 CU000	Total CU000
Recognising the regulatory asset at its present value of CU83,200 using a discount rate of 2%						
Revenue (amounts billed)	20	22.8	22.0	21.5	20.7	107.0
Regulated rate adjustment: income/ (expense)	83.2	(20)	(20)	(20)	(20)	3.2
Regulated rate adjustment: 'interest' expense (unwinding of return)	0	(1.3)	(0.9)	(0.7)	(0.3)	(3.2)
Operating expenses	(100)	(0)	(0)	(0)	(0)	(100)
Profit/ (Loss)	**3.2**	**1.5**	**1.5**	**0.8**	**0.4**	**7.0**
Regulatory (liability)/ asset	83.2	61.9	41.0	20.3	0	

41. We suggest that, when deciding whether to recognise this return as a gain in 20X1, or recognise it over time, the reason for the return should be considered. In this example, the CU3,200 reflects the present value of the return for investors that the entity has a right to include in the rate. This return is provided in addition to the compensation for the time value of money, calculated by using the 2% prevailing market rate that reflects the risks associated with the resulting cash flows.

42. If this additional return is a reasonable proxy for the return that reflects the risks faced by investors in a rate-regulated market (the prevailing market return), this suggests that the additional return is provided to reflect the deferred recovery of the costs. In such a case, it would seem reasonable to recognise the return in profit or loss over the period in which there is a regulatory asset balance outstanding. This can be achieved by using the regulatory return rate of 3.7% to discount the four remaining annual instalments of CU20,000 to be billed in 20X2-20X5 back to the end of 20X1. This would result in Entity W reporting the following in its financial statements:

Year to 31 December	20X1 CU000	20X2 CU000	20X3 CU000	20X4 CU000	20X5 CU000	Total CU000
Recognising the regulatory asset at its present value of CU80,000 using a discount rate of 3.7%						
Revenue (amounts billed)	20	22.8	22.0	21.5	20.7	107
Regulated rate adjustment: income/ (expense)	80	(20)	(20)	(20)	(20)	0
Operating expenses	(100)	(0)	(0)	(0)	(0)	(100)
Profit/ (Loss)	**0**	**2.8**	**2.0**	**1.5**	**0.7**	**7**
Regulatory (liability)/ asset	80	60	40	20	0	

43. In this example, the 'profit' in each year is made up of:

    (a) the 2% interest that compensates the entity for the time value of money (reflecting the risks associated with the related cash flows), and

    (b) the additional return to investors.

Year to 31 December	20X1 CU000	20X2 CU000	20X3 CU000	20X4 CU000	20X5 CU000	Total CU000
Interest at 2%	0	1.5	1.1	0.8	0.4	3.8
Investor return	0	1.3	0.9	0.7	0.3	3.2
Profit/ (Loss)	**0**	**2.8**	**2.0**	**1.5**	**0.7**	**7.0**

44. If the additional return provided to investors is significantly higher than the return that reflects the risks faced by investors in a rate-regulated market (the prevailing market return), this suggests that some of the return may be for something other than the investment in the regulatory asset. In some cases, it may be possible to identify a specific reason for the additional return. For example, the entity may earn a bonus as a result of exceeding a defined performance target in a particular period. In such a case, it may be appropriate to recognise the gain in that period. However, in practice, it may be difficult to identify what the higher return relates to. In such cases, it may be more appropriate to recognise the gain over time by discounting the asset using the regulatory return rate.

45. We will discuss this further at a future meeting when we consider types of regulatory assets other than those reflecting an entity's right to increase the rate charged to customers to the extent needed to recover specified costs incurred.

Further issues to consider

Accruing interest when billing is delayed

46. In the examples discussed so far, the billing patterns have been straightforward, with billings starting in the year that the costs were incurred and the amounts billed include the allowance for interest and a return. In some cases, the regulator may delay the start of billing to a later period. In such circumstances, the entity can earn interest during the period but that interest will not be included in the amounts billed to customers until a future period.

Example 5—rate compensates for time value of money: no more, no less, with start of billing delayed

47. The facts are the same as in example 2 (paragraphs 23-24), except that Entity W cannot increase the rate to start to recover the costs incurred during 20X1 until 20X3. Consequently, the costs incurred and the allowed interest is included in the amounts billed to customers during the three years 20X3-20X5.

48. Using the prevailing market interest rate of 2% to discount the amounts to be billed in 20X2-20X5 back to the end of **20X1** gives a present value of CU100,000. Using the same rate to discount the amounts to be billed in 20X2-20X5 back to the end of **20X2** gives a present value of CU102,000. The regulatory asset of CU102,000 reverses over the three-years 20X3-20X5 as the entity consumes its right to charge the higher rate by including in amounts billed to customers each year CU34,000 (CU102,000/3) of costs incurred plus 2% interest each year on the outstanding amount of costs incurred yet to be recovered. In this case, the CU2,000 interest that accrues during 20X2 is not included in the amounts billed to customers in 20X2. Instead, it is added to the outstanding costs incurred that have not been recovered by the end of 20X2.

Year to 31 December	20X1 CU000	20X2 CU000	20X3 CU000	20X4 CU000	20X5 CU000
Regulatory asset					
Opening asset balance	0.0	100.0	102.0	68.1	34.0
Initial recognition	100.0	0	0	0	0
Included in amounts billed	0	0	(36.0)	(35.4)	(34.7)
Interest income at 2%	0	2.0	2.1	1.3	0.7
Closing asset balance	**100.0**	**102.0**	**68.1**	**34.0**	**0.0**

49. In this case, identifying the nature or reason for the interest or return rate provided the regulatory agreement, as well as identifying the nature of the regulatory asset, helps to identify whether the CU2,000 interest accrued during 20X2 should be recognised in profit or loss as it accrues in 20X2 or as it is billed in 20X3-20X5.

50. We have suggested in our analysis that the regulatory asset is considered to reflect the entity's right to increase the rate charged to customers to the extent needed to recover costs incurred, including compensation for the time value of money at a rate that reflects the risks associated with the related cash flows. This suggests that the regulatory asset should be measured, both initially and subsequently, using the rate specified in the rate regulation (regulatory interest rate or regulatory return rate). The exception to this may be when the regulatory rate is insufficient to fully compensate the entity for the time value of money and risks associated with the related cash flows, when using the prevailing market interest rate may be more appropriate (paragraphs 29-34).

51. In this example, the regulatory interest rate of 2% compensates the entity for the time value of money and risks associated with the related cash flows. Using this interest rate, the regulatory asset will be measured at CU100,000 at the end of 20X1 and CU102,000 at the end of 20X2. Consequently, the CU2,000 interest accreted during 20X2 will need to be recognised in profit or loss during 20X2. Because this CU2,000 is included in the amounts billed on a straight-line basis in each of the three-years 20X3-20X5 (ie CU667 per year), a regulated rate 'unwinding' adjustment needs to be recognised in profit or loss to avoid double-counting this interest. For ease of presentation, we show each element of the reversal of the regulatory asset as a separate line item in profit or loss:

Year to 31 December	20X1 CU000	20X2 CU000	20X3 CU000	20X4 CU000	20X5 CU000	Total CU000
Regulatory asset at end of 20X1 and 20X2 measured at present value of future cash flows using a discount rate of 2%						
Revenue (amounts billed)	0	0	36.0	35.4	34.7	106.1
Regulated rate adjustment: income/ (expense)	100	0	(33.4)	(33.3)	(33.3)	0
Regulated rate adjustment: accrued interest income	0	2.0	0	0	0	2.0
Regulated rate adjustment: unwinding accrued interest income	0	0	(0.7)	(0.7)	(0.6)	(2.0)
Operating expenses	(100)	(0)	(0)	(0)	(0)	(100)
Profit/ (Loss)	**0.0**	**2.0**	**1.9**	**1.4**	**0.8**	**6.1**
Regulatory (liability)/ asset	100.0	102.0	68.1	34.0	0.0	

52. Alternatively, the measurement of the regulatory asset could focus more on the 'recoverable costs', rather than the cash flows resulting from the right to increase the rate. In that case, the regulatory asset could be measured at the nominal amount of the costs incurred (ie CU100,000) at the end of both 20X1 and 20X2. As a result, the CU2,000 interest accreted during 20X2 will be recognised in profit or loss as it is recovered through the amounts billed on a straight-line basis over the three years 20X3-20X5 (ie CU667 per year), together with the interest earned and billed during those years.

Year to 31 December	20X1 CU000	20X2 CU000	20X3 CU000	20X4 CU000	20X5 CU000	Total CU000
Regulatory asset at end of 20X2 measured at nominal amount of costs incurred						
Revenue (amounts billed)	0	0	36.0	35.4	34.7	106.1
Regulated rate adjustment: income/ (expense)	100	0	(33.4)	(33.3)	(33.3)	0
Operating expenses	(100)	(0)	(0)	(0)	(0)	(100)
Profit/ (Loss)	**0.0**	**0.0**	**2.6**	**2.1**	**1.4**	**6.1**
Regulatory (liability)/ asset	100.0	100.0	66.6	33.3	0	

53. The examples in this paper relate to costs incurred when the entity has carried out activities resulting in goods or services being delivered to customers (paragraph 10). In a future meeting, we will consider regulatory assets arising in

other circumstances, including when costs are incurred in constructing or acquiring assets to be used to deliver goods or services in future periods. This will help test the robustness of proposals developed as a result of feedback from Board members in this meeting.

Short-term reversals

54. Many regulatory assets, particularly input cost variances, are reflected in the rate within a relatively short time of their origination and, as a result, the period of reversal is short. In many examples we have seen, the rate adjustment comes into effect within one or two years of the variance arising and so the measurement of the resulting regulatory asset may not be highly exposed to the time value of money. When developing proposals for the model, the Board may consider providing a practical expedient to measure the regulated asset at its nominal amount (ie the amount of the cost variance) in such cases. This expedient could be similar to that already provided in IFRS 9 *Financial Instruments* for trade receivables.

55. Using IFRS 9, a trade receivable is measured at its transaction price (as defined in IFRS 15) if:

    (a) it does not contain a significant financing component; or

    (b) if the period between delivery of the service and when the customers pay for that service will be one year or less.[9]

Questions for the Board

56. We are not making recommendations at this stage so are not asking Board members for decisions. Instead, we are seeking tentative views to help build the analysis for future papers on measurement and its interaction with recognition.

[9] See paragraph 5.1.3 of IFRS 9 and paragraph 63 of IFRS 15.

Questions for the Board

1. Do Board members have any comments on whether a loss should be recognised on initial recognition of a regulatory asset when the entity is not expected to be fully compensated for the time value of money (paragraphs 29-34)?
2. Do Board members have any comments on whether a gain should be recognised on initial recognition of a regulatory asset when the entity is expected to earn a return, as well as being fully compensated for the time value of money (paragraphs 35-45)?
3. Do Board members have any comments on whether:
    a. the nature of the regulatory asset is more appropriately reflected by measuring it at:
        i. the nominal amount of the costs incurred that will be included in the calculation of the future rate; or
        ii. the present value of the related future cash flows?
    b. accruing interest that will not be included in the rate until a later period should be recognised in profit or loss as it accrues or only when it is billed to customers in the rate (paragraph 46-53)?
4. Do Board members have any other comments on issues discussed in this paper?