

# Rate-regulated Activities

EFRAG Board

17 February 2020

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# Agenda

What type of rate regulation are we considering?

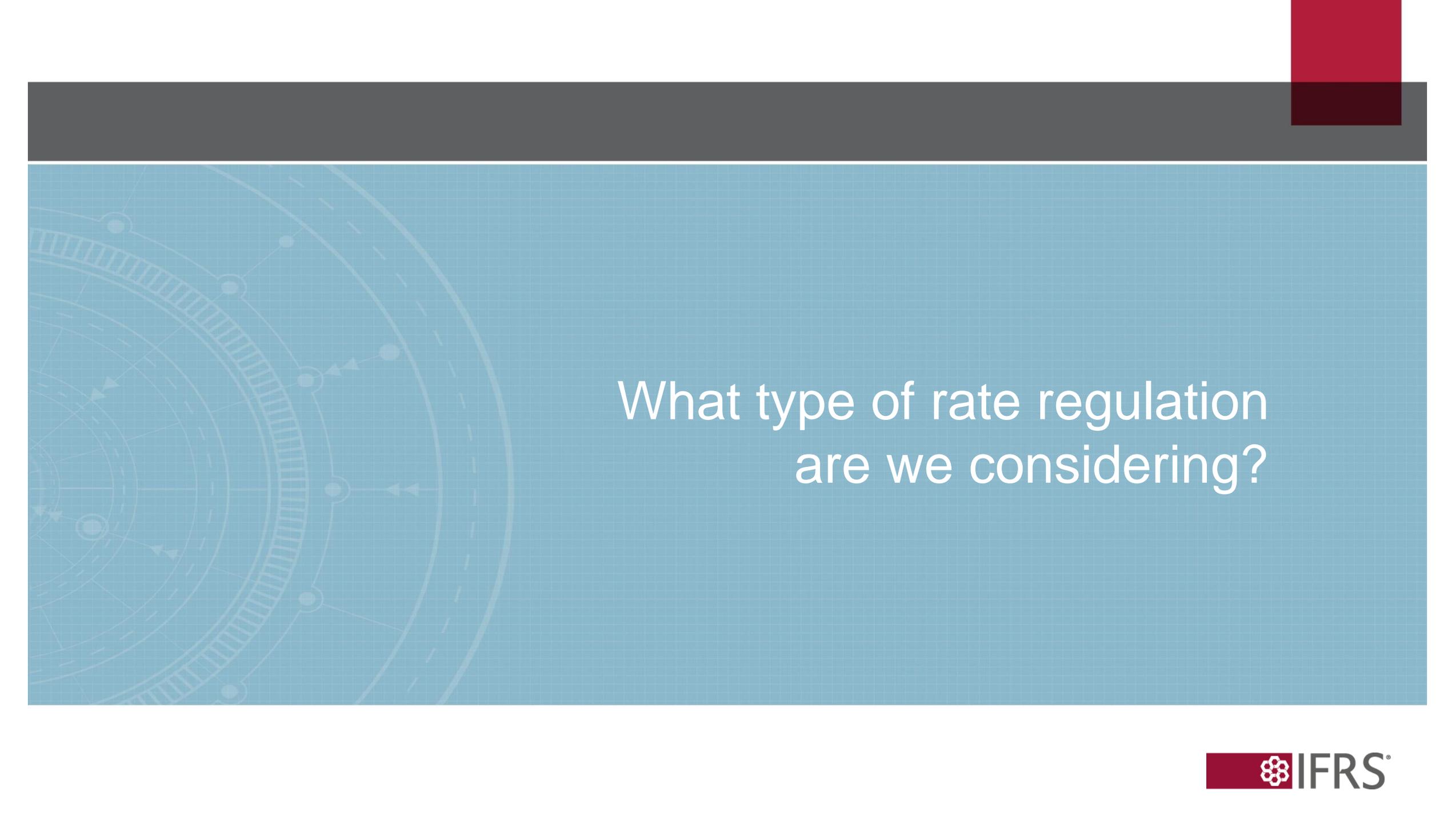
What is the problem?

When do regulatory assets and regulatory liabilities arise?

How are regulatory assets and regulatory liabilities measured?

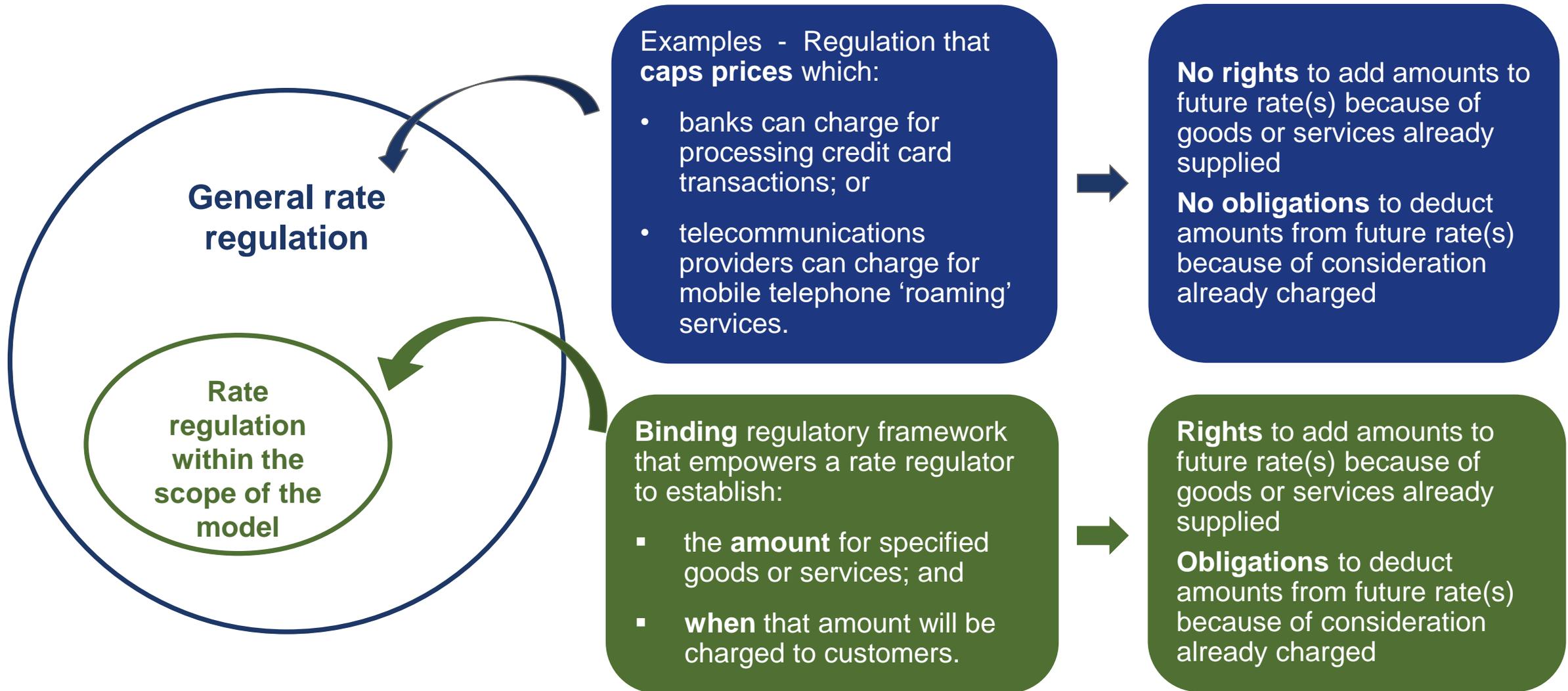
Presentation and disclosure

Comparison with US GAAP



What type of rate regulation  
are we considering?

# Rate regulation within the scope of the model vs other types of rate regulation



# Rate regulation that creates regulatory assets and regulatory liabilities

Formal  
regulatory  
framework

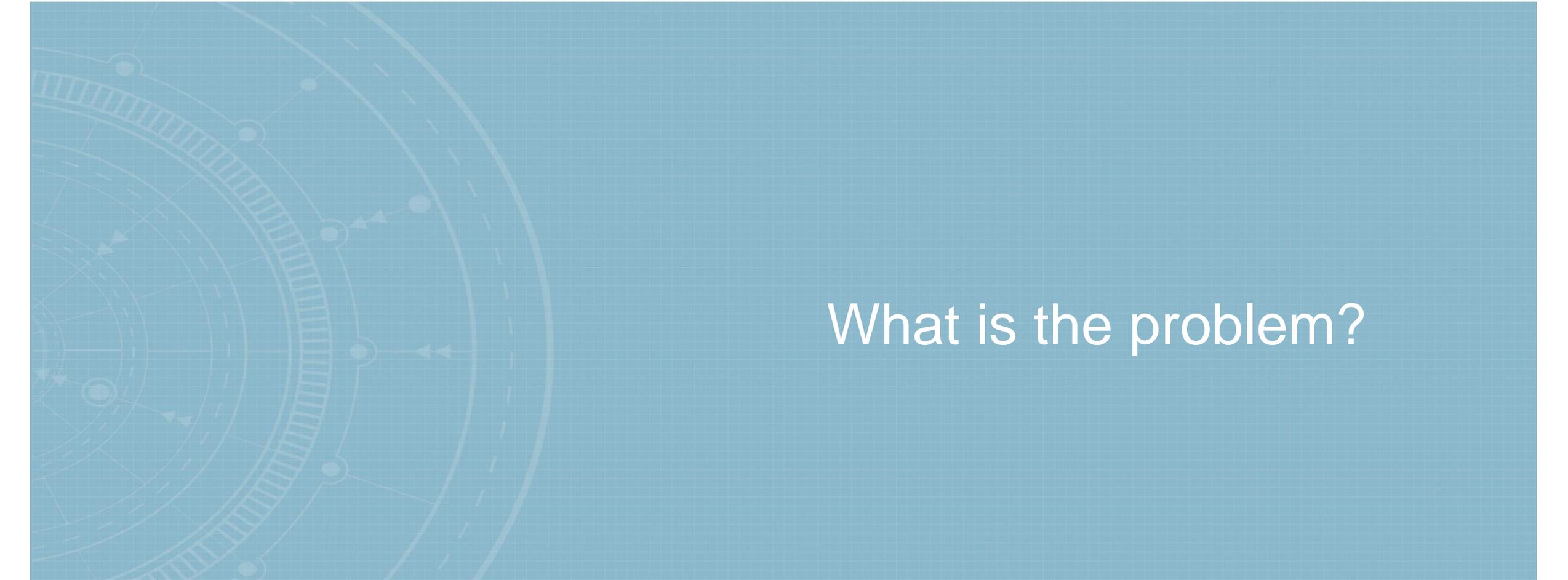


Binding on both  
entity and rate  
regulator



Basis for setting the rate that gives:

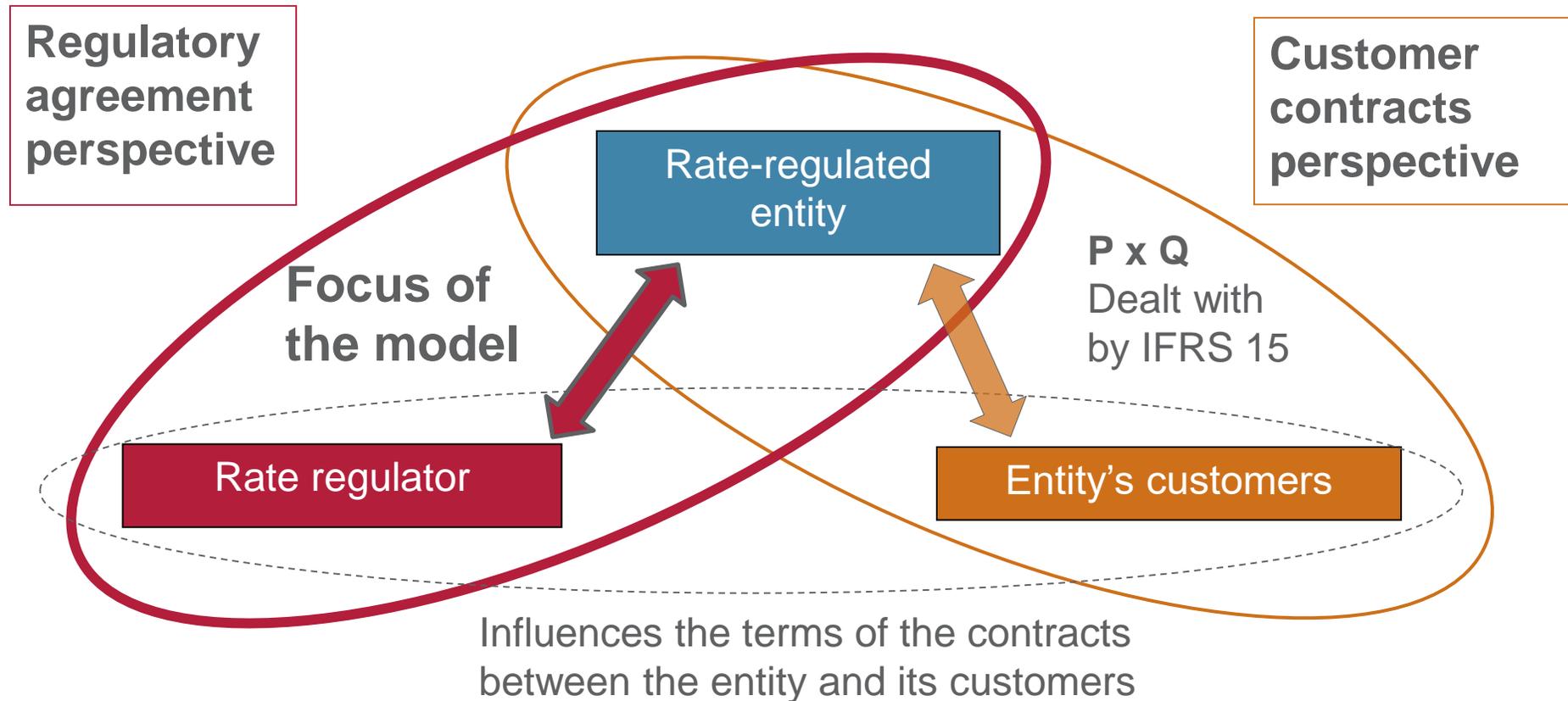
- rights to add amounts to future rate(s) because of goods or services already supplied
- obligations to deduct amounts from future rate(s) because of consideration already charged



What is the problem?

# The regulatory agreement perspective

In the rate regulation within the scope of the model, the rate regulator intervenes to affect both the **amount** and the **timing** of the price 'P' billed to customers.



A binding regulatory agreement establishes:

The **AMOUNT** an entity is entitled to charge customers for the supply of goods or services

**WHEN** those amounts are included in the rate(s) charged to customers



Recognition in statement(s) of financial performance



**Timing—expenses** (or other income) recognised when goods or services are supplied

may be  
 $\neq$   
(ie before or after)



**Timing—revenue recognised** when amounts for those goods or services are included in the rate(s) charged to customers

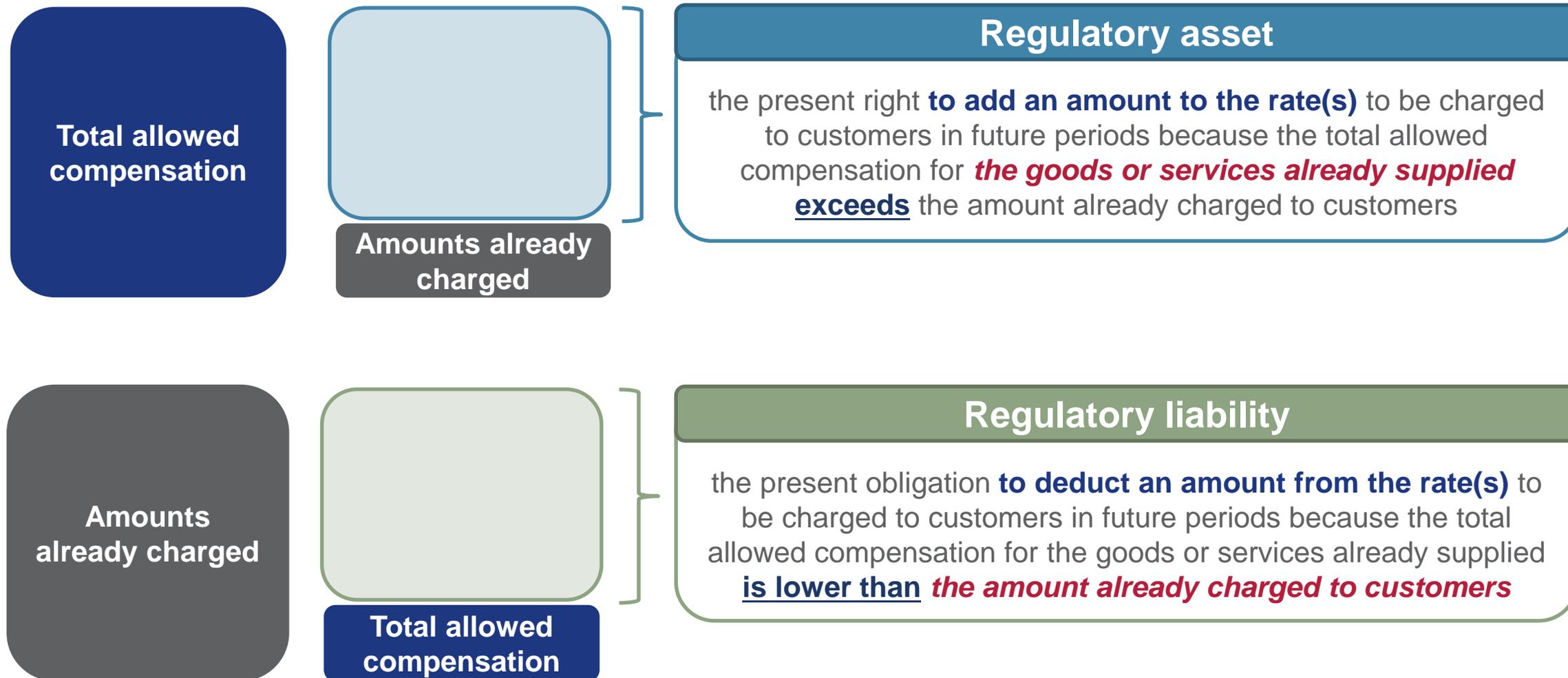
If timing differs



Reported financial position is **INCOMPLETE** — **unrecognised** rights and obligations



When do regulatory assets  
and regulatory liabilities arise?



# Total allowed compensation—amount

**Total allowed compensation**—the amount an entity is entitled to charge customers for the goods or services supplied during the period

Allowable expenses

Target profit

Margins on costs

Incentive rewards (bonuses) and penalties

Interest or return

# Total allowed compensation—timing

**Total allowed compensation**—the amount an entity is entitled to charge customers for the goods or services supplied during the period

Rates charged to customers are based on estimates of costs, volume and include a target profit. Timing differences may arise between the rates charged to customers and total allowed compensation.

## Estimation variances

At the entity's risk—no resulting adjustment to future rate(s)

At the customers' risk—true-up through future rate(s)

## Other timing differences

Allowable expenses incurred and 'spread' through future rate(s)

Pre-funding in current rate for future allowable expenses

Different principles for defining 'incurred'

# Estimation variances

Entity A is bound by a regulatory agreement for the supply of electricity services to customers.

According to the regulatory agreement any variance between estimated and actual allowable input costs arising in one period 'n' is included in the regulated rates charged to customers in period 'n+2'. Allowable input costs estimated for Year 1 were CU1,000.

Assume that during Year 1, the estimated number of units to be supplied equalled the actual number of units supplied. However, the costs of the input costs increased and Entity A incurred higher actual input costs of CU1,100.

Entity A has a right to include the variance of CU100 in the regulated rates charged to customers during Year 3. Thus, in Year 1, Entity A recognises a regulatory asset of CU100.

**Total allowed  
compensation**

**Allowable  
expenses incurred  
in Year 1  
CU1,100**

**Regulatory asset  
CU100**

**Amounts already  
charged in Year 1  
CU1,000**

# Storm damage

Entity B is bound by a regulatory agreement for the supply of electricity services to customers.

The regulated rate that Entity B charges to customers during Year 1 anticipates the occurrence of an adverse event (a storm) and includes an amount of CU1,000 to ensure the entity is compensated for the costs of restoring the supply after such an event.

During Year 1, Entity B incurs repair costs of CU1,200 relating to restoring the supply after a storm. The entity submits a rate review during Year 1, asking for the excess (CU200) between the actual repair costs incurred (CU1,200) and the estimated repair costs already included in the regulated rate charged during Year 1 (CU1,000).

The regulator allows the recovery of CU200 through the regulated rates charged to customers in the following 5 years (ie during Years 2–6). Thus, in Year 1, Entity B recognises a regulatory asset of CU200.

**Total allowed  
compensation**

**Allowable  
expenses incurred  
in Year 1  
CU1,200**

**Regulatory asset  
CU200**

**Amounts already  
charged in Year 1  
CU1,000**

Entity C is bound by a regulatory agreement for the provision of water services to customers. The regulatory agreement requires Entity C to upgrade a network of water pipelines during Years 1 and 2 that will require an investment of CU1,000. The upgraded network will be used for the supply of services from the start of Year 3 and will have a useful life of 10 years.

To support the cash flow requirements for the upgrade, the regulatory agreement allows Entity C to charge a higher rate to customers in Year 1 which provides incremental cash flows of CU500. As a result, Entity C has an obligation to deduct CU500 from the future regulated rate(s).

**Total allowed  
compensation = CU0**

**No goods or  
services have been  
supplied using the  
upgraded network  
during Year 1**

**Amounts already  
charged in Year 1  
CU500**

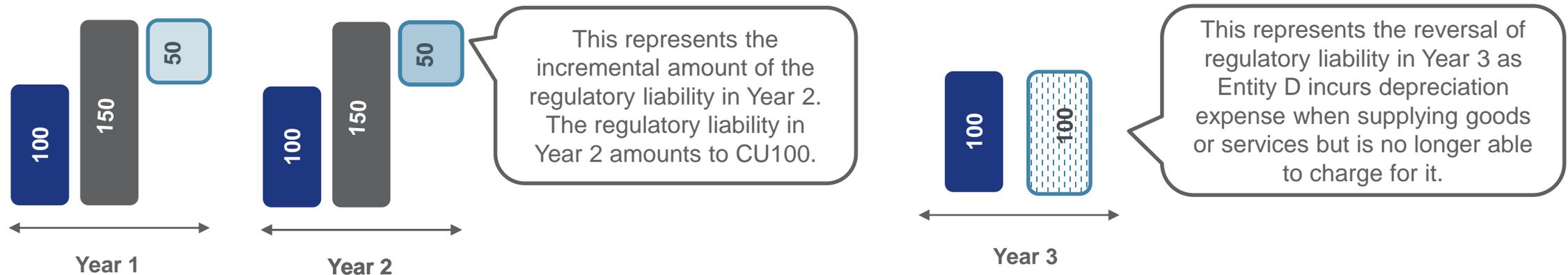
**Regulatory  
liability  
CU500**

# Accelerated depreciation

Entity D is bound by a regulatory agreement for the provision of water services to customers. At the end of Year 0, the entity has purchased a new software for CU300. The useful economic life is three years, starting from Year 1.

The regulatory agreement allows the entity to include the amount invested in the software in the regulated rates charged to customers during two years, Years 1 and 2.

In Years 1–3, Entity D incurs depreciation expense amounting to CU100 per year. However, the regulatory agreement entitles it to charge an amount of CU150 in Years 1 and 2. Entity D recognises a regulatory liability amounting to CU50 in Year 1 and to CU100 in Year 2.



■ Total allowed compensation for Years 1-3 consists of allowable expense (depreciation expense) of CU100.

■ Amounts charged in Years 1-2 of CU150.

■ Regulatory liability amounting to CU50 in Year 1 and to CU100 in Year 2.



How are regulatory assets and  
regulatory liabilities  
measured?

# Measurement—a modified historical cost cash-flow-based measurement technique

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## Cash-flow-based measurement technique

### Estimate future cash flows:

- estimate using 'most likely amount' or 'expected value' (depending on facts and circumstances)
- update estimates if changes occur

### Discount the estimated cash flows:

- use the regulatory interest or return rate as the discount rate unless this rate is not sufficient; and
- keep the discount rate established at initial recognition, unless the regulatory agreement changes the interest or return rate

Allowable expenses

Margins on costs

Incentive rewards (bonuses) and penalties

Interest or return

# Adequacy of the regulatory interest or return rate

Is there any indication that the regulatory interest or return rate is not sufficient to compensate the entity for the time value of money and risks inherent in the cash flows?

No

Is there any indication that the regulatory interest or return rate is set at a level that provides excess compensation<sup>1</sup>/excess charge due to an identifiable transaction or event?

No

Use regulatory interest or return rate and recognise interest or return over time

Yes

Recognise a regulatory asset/regulatory liability for the excess compensation<sup>1</sup>/excess charge arising from the identifiable transaction or event in applicable period

Regulatory assets and regulatory liabilities

Yes

Regulatory liability

Regulatory asset

Establish the 'minimum rate'<sup>2</sup>

If the regulatory interest or return rate is less than the minimum rate, discount the estimated future cash flows at the 'minimum rate' and recognise loss immediately.

Regulatory assets

<sup>1</sup> Excess compensation can arise when the regulatory interest or return rate on:  
(a) regulatory asset **compensates an entity more** than the rate that reflects time value of money and risks inherent in the cash flows.  
(b) regulatory liability **charges an entity less** than the rate that reflects time value of money and risks inherent in the cash flows.

<sup>2</sup> Minimum rate—the rate that the entity would expect to receive for a stream of cash flows with the same timing and uncertainty as those of the regulatory asset.



# Presentation and disclosure

Present as **separate line items**:

- in the statement of financial position, **regulatory assets and regulatory liabilities**;
- in the statement(s) of financial performance, the net movement between the opening and closing carrying amounts of regulatory assets and regulatory liabilities—**immediately below the revenue line item**. This line item will be labelled **regulatory income or regulatory expense**.

**Overall disclosure objective** focused on the effects that the transactions or other events that give rise to timing differences have on an entity's financial performance and financial position.

The information to be disclosed is information that will help users to understand the entity's financial performance, financial performance trends and assess the amounts, timing and uncertainty of (prospects for) its future cash flows.

In limited cases, the model requires presentation of regulatory income or regulatory expense in other comprehensive income (OCI) if the underlying item is also presented in OCI.

# Presentation—statement of profit or loss

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Revenue	10,000
Regulatory income (note X, <b>next slide</b> )	700
	<hr/>
	10,700
Expenses	(8,500)
	<hr/>
<b>Profit before tax</b>	<b>2,200</b>

Charged to customers this year (IFRS 15 *Revenue*):

- Includes amounts for goods or services supplied in other years—past or future;
- Does not include amounts for goods or services supplied this year—charged in past or future

- Amounts charged to customers in other years—past or future—for goods or services supplied this year; **less**
- Amounts charged to customers this year for goods or services supplied in other years—past or future

Optional sub-total: all amounts chargeable to customers in this or other years for goods or services supplied this year

Includes all expenses incurred this period for goods or services supplied this year

The numbers in this slide are for illustrative purposes only and are not related to any other examples in this presentation.

# Disclosures—Note X Regulatory income

Amounts for goods or services supplied in current year:		
- to be charged to customers in future years	800	Addition to regulatory assets
- already charged to customers in prior years	250	Fulfilment of regulatory liabilities
Amounts charged to customers in current year:		
- for future services	(300)	Addition to regulatory liabilities
- for services in prior years	(150)	Recovery of regulatory assets
Net regulatory interest on regulatory assets and regulatory liabilities	90	
Changes in estimates	10	
<b>Regulatory income (previous slide)</b>	<b>700</b>	

- Amounts charged to customers in other years—past or future—for goods or services supplied this year; less
- Amounts charged to customers this year for goods or services supplied in other years—past or future

# Disclosures—Note X Maturity analysis

Maturity of regulatory assets and regulatory liabilities	Total	Within one year	Between one and five years	More than five years
Regulatory assets as at 31 December X1	800	100	400	300
Regulatory liabilities as at 31 December X1	500	50	200	250

Amounts to be added to future rate(s)

Amounts to be deducted from future rate(s)

The model also requires disclosure of information on risks and uncertainties associated with the regulatory assets and regulatory liabilities outstanding as of the reporting date.

# Comparison with US GAAP

# Difference in approach

Many entities that currently recognise regulatory balances in their financial statements do so applying US GAAP or GAAP based on US GAAP.

## Model

Focuses on accounting for present rights and present obligations **incremental** to those reported using IFRS Standards, including IFRS 15

**Supplementary approach** with other IFRS Standards applied without modification

Scope  
*Similar*

Measurement  
*Difference in approach*

Presentation and disclosure  
*Different*

Differences

## US GAAP

Primarily a **cost deferral approach**

**Overrides** some standards, primarily for property, plant and equipment, to align financial accounting with regulatory accounting

# Get involved

Find out more: [www.ifrs.org](http://www.ifrs.org)

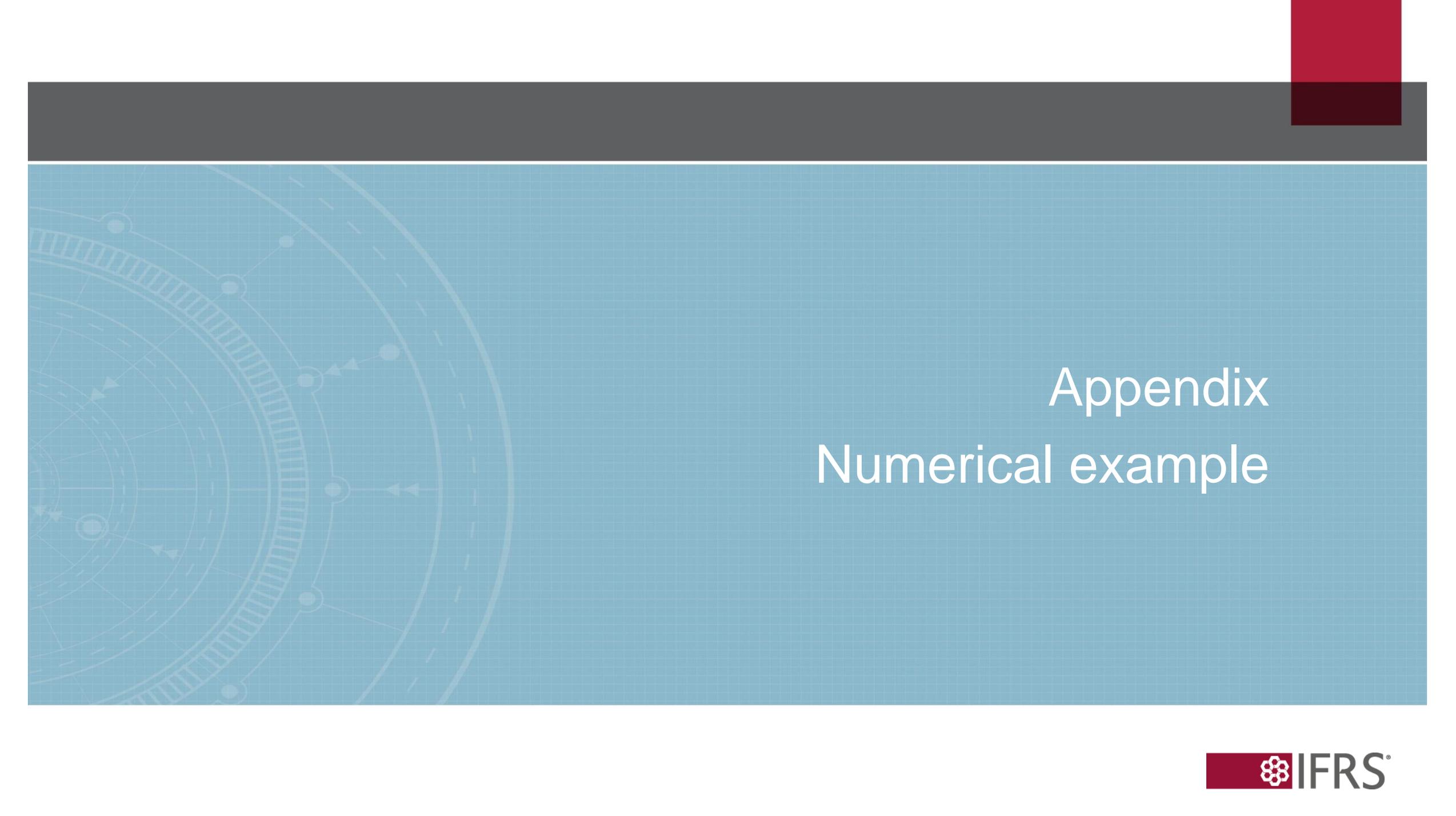
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# Appendix

## Numerical example

# Recognition of regulatory asset

Entity A is bound by a regulatory agreement for the supply of electricity services to customers.

According to the regulatory agreement any variance between estimated and actual allowable input costs arising in one period 'n' is included in the regulated rates charged to customers in period 'n+2'. Allowable input costs estimated for Year 1 were CU1,000.

Assume that during Year 1, the estimated number of units to be supplied equalled the actual number of units supplied. However, the costs of the input costs increased and Entity A incurred higher actual input costs of CU1,100.

Entity A has a right to include the variance of CU100 in the regulated rates charged to customers during Year 3. Thus, in Year 1, Entity A recognises a regulatory asset of CU100.

**Total allowed compensation**

**Allowable expenses incurred in Year 1  
CU1,100**

**Regulatory asset =  
CU100**

**Amounts already charged in Year 1  
CU1,000**

# Measurement of regulatory asset

The regulatory agreement gives the entity a regulatory interest of 3% on the outstanding balance of the regulatory asset at the start of each year (Years 2 and 3). The example assumes the regulatory interest rate sufficiently compensates the entity for time value of money and risks inherent in the cash flows.

The regulatory balances arising from the regulatory asset are as follows:

Regulatory balances			
In CU	Year 1	Year 2	Year 3
<b>Opening balance</b>	-	<b>100.0</b>	<b>103.0</b>
Origination	100.0	-	-
Regulatory interest income	-	3.0	3.1
Recovery	-	-	(106.1)
<b>Closing balance</b>	<b>100.0</b>	<b>103.0</b>	-

The measurement of the regulatory asset in Year 1 would be as follows:

Cash-flow based measurement	Year 1	Year 2	Year 3
Future cash flows	-	-	106.1
Discount factors (using 3%)	-	0.97	0.94
<b>Discounted future cash flows</b>	<b>100.0</b>	-	<b>100.0</b>

# Presentation of regulatory asset

Assuming no other transactions occurred during Year 1 to Year 3, the statement(s) of financial performance and financial position of Entity A are as follows:

In CU	Year 1	Year 2	Year 3
<b>Statement(s) of financial performance</b>			
Revenue	1,000.0	-	106.1
Regulatory income / (regulatory expense)	100.0	3.0	(103.0) (*)
Operating expenses	1,100.0	-	-
<b>Profit or loss</b>	-	3.0	3.1
<b>Statement(s) of financial position</b>			
Regulatory asset	100.0	103.0	-

The profit in Year 2 and 3 represents the regulatory interest of 3% that Entity A is entitled on the outstanding opening balance of the regulatory asset at the start of each year.

(\*) Regulatory expense of (CU103.0) in Year 3 consists of the following items:

- Regulatory interest income of CU3.1 accrued in Year 3; and
- Recovery of the regulatory asset of (CU106.1) in Year 3

# Disclosure—Statement(s) of financial performance

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## Regulatory income / (regulatory expense) breakdown

Breakdown of regulatory income / (regulatory expense)	Year 1	Year 2	Year 3
Amounts for goods or services supplied in the current year:			
- to be charged to customers in future years	100.0	-	-
- to be charged to customers in future years	-	-	-
Amounts charged to customers in current year:			
- for future goods or services	-	-	-
- for goods or services in prior years	-	-	(106.1)
Net regulatory interest on regulatory assets and regulatory liabilities	-	3.0	3.1
Changes in estimates	-	-	-
<b>Regulatory income / (regulatory expense)</b>	<b>100.0</b>	<b>3.0</b>	<b>(103.0)</b>

Origination of the regulatory asset in Year 1

Amount charged and recognised as revenue in Year 3

Accrued interest in Years 2 and 3

# Disclosure—Statement of financial position

## Statement(s) of financial position—roll-forward and maturity analysis

Roll-forward regulatory asset	Year 1	Year 2	Year 3
<b>Opening balance</b>	-	<b>100.0</b>	<b>103.0</b>
Originations	100.0	-	-
Regulatory interest income	-	3.0	3.1
Recovery	-	-	(106.1)
<b>Closing balance</b>	<b>100.0</b>	<b>103.0</b>	-

Including qualitative and quantitative information about the reasons for the **originations** of regulatory assets and regulatory liabilities.

Maturity of regulatory asset				
Regulatory asset as at 31 December (Year 1)	Total	Within one year	Between one and five	More than five
Regulatory asset	100.0	-	100.0	-

Including an explanation of how the future recovery of regulatory assets or the future fulfilment of regulatory liabilities is affected by risks and uncertainty.