INTERPRETATION OF STATUTORY BOARD FINANCIAL REPORTING STANDARD

INT SB-FRS 112

Service Concession Arrangements

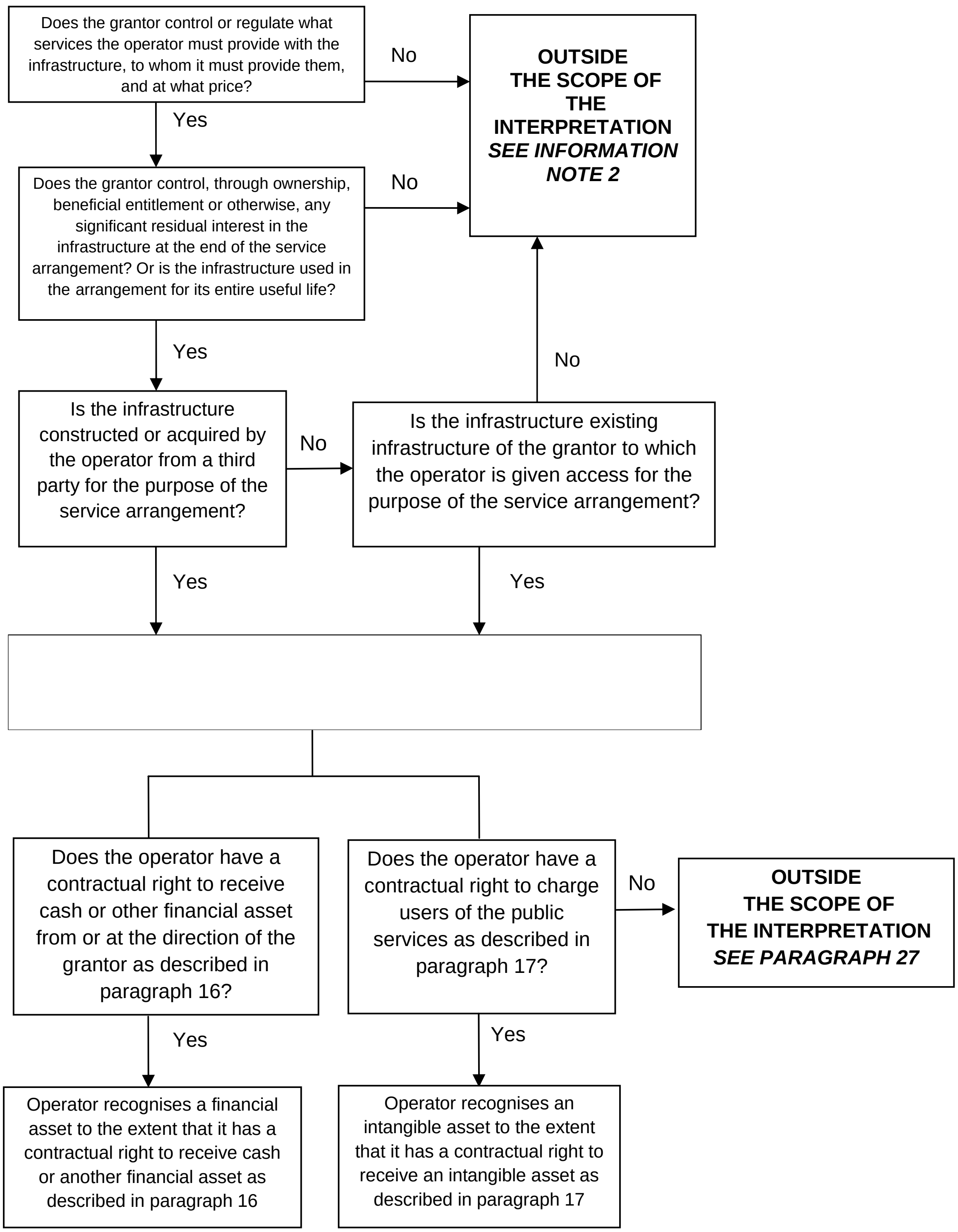
Information Notes & Illustrative Examples

Information note 1

Accounting framework for public-to-private service arrangements

This note accompanies, but is not part of, INT SB-FRS 112.

The diagram below summarises the accounting for service arrangements established by INT SB-FRS 112.



Information note 2

References to SB-FRSs that apply to typical types of public-to-private arrangements

This note accompanies, but is not part of, INT SB-FRS 112.

The table sets out the typical types of arrangements for private sector participation in the provision of public sector services and provides references to SB-FRSs that apply to those arrangements. The list of arrangements types is not exhaustive. The purpose of the table is to highlight the continuum of arrangements. It is not the Interpretation's intention to convey the impression that bright lines exist between the accounting requirements for public-to-private arrangements.

<table>
<tr><th>Category</th><th>Lessee</th><th colspan="3">Service provider</th><th colspan="2">Owner</th></tr>
<tr><td>Typical arrangement types</td><td>Lease (eg Operator leases asset from grantor)</td><td>Service and/or maintenance contract (specific tasks eg debt collection)</td><td>Rehabilitate-operate-transfer</td><td>Build-operate-transfer</td><td>Build-own-operate</td><td>100% Divestment/ Privatisation/ Corporation</td></tr>
<tr><td>Asset ownership</td><td colspan="4">Grantor</td><td colspan="2">Operator</td></tr>
<tr><td>Capital investment</td><td colspan="2">Grantor</td><td colspan="4">Operator</td></tr>
<tr><td>Demand risk</td><td>Shared</td><td>Grantor</td><td colspan="2">Operator and/or Grantor</td><td colspan="2">Operator</td></tr>
<tr><td>Typical duration</td><td>8–20 years</td><td>1–5 years</td><td colspan="3">25–30 years</td><td>Indefinite (or may be limited by licence)</td></tr>
<tr><td>Residual interest</td><td colspan="4">Grantor</td><td colspan="2">Operator</td></tr>
<tr><td>Relevant SB-FRSs</td><td>SB-FRS 17</td><td>SB-FRS 18</td><td colspan="2">INT SB-FRS 112</td><td colspan="2">SB-FRS 16</td></tr>
</table>

Illustrative examples

These examples accompany, but are not part of, INT SB-FRS 112.

Example 1: The grantor gives the operator a financial asset

Arrangement terms

IE1 The terms of the arrangement require an operator to construct a road—completing construction within two years—and maintain and operate the road to a specified standard for eight years (ie years 3–10). The terms of the arrangement also require the operator to resurface the road at the end of year 8—the resurfacing activity is revenue-generating. At the end of year 10, the arrangement will end. The operator estimates that the costs it will incur to fulfil its obligations will be:

Table 1.1 *Contract costs*

	Year	CU[1]
Construction services	1	500
	2	500
Operation services (per year)	3–10	10
Road resurfacing	8	100

IE2 The terms of the arrangement require the grantor to pay the operator 200 currency units (CU200) per year in years 3–10 for making the road available to the public.

IE3 For the purpose of this illustration, it is assumed that all cash flows take place at the end of the year.

Contract revenue

IE4 The operator recognises contract revenue and costs in accordance with SB-FRS 11 *Construction Contracts* and SB-FRS 18 *Revenue*. The costs of each activity—construction, operation and resurfacing—are recognised as expenses by reference to the stage of completion of that activity. Contract revenue—the fair value of the amount due from the grantor for the activity undertaken—is recognised at the same time. Under the terms of the arrangement the operator is obliged to resurface the road at the end of year 8. In year 8 the operator will be reimbursed by the grantor for resurfacing the road. The obligation to resurface the road is measured at zero in the statement of financial position and the revenue and expense are not recognised in profit or loss until the resurfacing work is performed.

IE5 The total consideration (CU200 in each of years 3–8) reflects the fair values for each of the services, which are:

[1] In this example, monetary amounts are denominated in 'currency units (CU)'.

Table 1.2 ***Fair values of the consideration received or receivable***

	Fair value		
Construction services	Forecast cost	+	5%
Operation services	” ”	+	20%
Road resurfacing	” ”	+	10%
Effective interest rate	6.18% per year		

IE6 In year 1, for example, construction costs of CU500, construction revenue of CU525 (cost plus 5 per cent), and hence construction profit of CU25 are recognised in profit or loss.

Financial asset

IE7 The amounts due from the grantor meet the definition of a receivable in SB-FRS 39 *Financial Instruments: Recognition and Measurement.* The receivable is measured initially at fair value. It is subsequently measured at amortised, ie the amount initially recognised plus the cumulative interest on that amount calculated using the effective interest method minus repayments.

IE8 If the cash flows and fair values remain the same as those forecast, the effective interest rate is 6.18 per cent per year and the receivable recognised at the end of years 1–3 will be:

Table 1.3 ***Measurement of receivable***

	CU
Amount due for construction in year 1	525
Receivable at end of year 1[2]	**525**
Effective interest in year 2 on receivable at the end of year 1 (6.18% × CU525)	32
Amount due for construction in year 2	525
Receivable at end of year 2	**1,082**
Effective interest in year 3 on receivable at the end of year 2 (6.18% × CU1,082)	67
Amount due for operation in year 3 (CU10 x (1 + 20%))	12
Cash receipts in year 3	(200)
Receivable at end of year 3	**961**

Overview of cash flows, statement of comprehensive income and statement of financial position

IE9 For the purpose of this illustration, it is assumed that the operator finances the arrangement wholly with debt and retained profits. It pays interest at 6.7 per cent per year on outstanding debt. If the cash flows and fair values remain the same as those forecast, the operator’s cash

[2] No effective interest arises in year 1 because the cash flows are assumed to take place at the end of the year.

flows, statement of comprehensive income and statement of financial position over the duration of the arrangement will be:

Table 1.4 *Cash flows* *(currency units)*

Year	1	2	3	4	5	6	7	8	9	10	Total
Receipts	-	-	200	200	200	200	200	200	200	200	1,600
Contract costs[3]	(500)	(500)	(10)	(10)	(10)	(10)	(10)	(110)	(10)	(10)	(1,180)
Borrowing costs[4]	-	(34)	(69)	(61)	(53)	(43)	(33)	(23)	(19)	(7)	(342)
Net inflow/ (outflow)	(500)	(534)	121	129	137	147	157	67	171	183	78

Table 1.5 *Statement of comprehensive income* *(currency units)*

Year	1	2	3	4	5	6	7	8	9	10	Total
Revenue	525	525	12	12	12	12	12	122	12	12	1,256
Contract costs	(500)	(500)	(10)	(10)	(10)	(10)	(10)	(110)	(10)	(10)	(1,180)
Finance income[5]	-	32	67	59	51	43	34	25	22	11	344
Borrowing costs[6]	-	(34)	(69)	(61)	(53)	(43)	(33)	(23)	(19)	(7)	(342)
Net profit	25	23	-	-	-	2	3	14	5	6	78

Table 1.6 *Statement of financial position* *(currency units)*

End of year	1	2	3	4	5	6	7	8	9	10
Amount due from grantor[7]	525	1,082	961	832	695	550	396	343	177	-
Cash/(debt)[8]	(500)	(1,034)	(913)	(784)	(647)	(500)	(343)	(276)	(105)	78
Net assets	25	48	48	48	48	50	53	67	72	78

IE10 This example deals with only one of many possible types of arrangements. Its purpose is to illustrate the accounting treatment for some features that are commonly found in practice. To make the illustration as clear as possible, it has been assumed that the arrangement period is only ten years and that the operator's annual receipts are constant over that period. In practice, arrangement periods may be much longer and annual revenues may increase with time. In such circumstances, the changes in net profit from year to year could be greater.

3 Table 1.1

4 Debt at start of year (table 1.6) x 6.7%

5 Amount due from grantor at start of year (table 1.6) × 6.18%

6 Cash/(debt) (table 1.6) × 6.7%

7 Amount due from grantor at start of year, plus revenue and finance income earned in year (table 1.5), less receipts in year (table 1.4).

8 Debt at start of year plus net cash flow in year (table 1.4).

Example 2: The grantor gives the operator an intangible asset (a licence to charge users)

Arrangement terms

IE11 The terms of a service arrangement require an operator to construct a road—completing construction within two years—and maintain and operate the road to a specified standard for eight years (ie years 3–10). The terms of the arrangement also require the operator to resurface the road when the original surface has deteriorated below a specified condition. The operator estimates that it will have to undertake the resurfacing at the end of year 8. At the end of year 10, the service arrangement will end. The operator estimates that the costs it will incur to fulfil its obligations will be:

Table 2.1 ***Contract costs***

	Year	**CU[9]**
Construction services	1	500
	2	500
Operation services (per year)	3–10	10
Road resurfacing	8	100

IE12 The terms of the arrangement allow the operator to collect tolls from drivers using the road. The operator forecasts that vehicle numbers will remain constant over the duration of the contract and that it will receive tolls of 200 currency units (CU200) in each of years 3–10.

IE13 For the purpose of this illustration, it is assumed that all cash flows take place at the end of the year.

Intangible asset

IE14 The operator provides construction services to the grantor in exchange for an intangible asset, ie a right to collect tolls from road users in years 3–10. In accordance with SB-FRS 38 *Intangible Assets*, the operator recognises the intangible asset at cost, ie the fair value of consideration transferred to acquire the asset, which is the fair value of the consideration received or receivable for the construction services delivered.

IE15 During the construction phase of the arrangement the operator's asset (representing its accumulating right to be paid for providing construction services) is classified as an intangible asset (licence to charge users of the infrastructure). The operator measures the fair value of its consideration received as equal to the forecast construction costs plus 5 per cent margin, which the operator concludes is consistent with the rate that a market participant would require as compensation for providing the construction services and for assuming the risk associated with the construction costs. It is also assumed that, in accordance with SB-FRS 23 *Borrowing Costs*, the operator capitalises the borrowing costs, estimated at 6.7 per cent, during the construction phase of the arrangement:

[9] In this example, monetary amounts are denominated in 'currency units (CU)'.

Table 2.2 ***Initial measurement of intangible asset***

	CU
Construction services in year 1 (CU500 × (1 + 5%))	525
Capitalisation of borrowing costs (table 2.4)	34
Construction services in year 2 (CU500 × (1 + 5%))	525
Intangible asset at end of year 2	1,084

IE16 In accordance with SB-FRS 38, the intangible asset is amortised over the period in which it is expected to be available for use by the operator, ie years 3–10. The depreciable amount of the intangible asset (CU1,084) is allocated using a straight-line method. The annual amortisation charge is therefore CU1,084 divided by 8 years, ie CU135 per year.

Construction costs and revenue

IE17 The operator recognises the revenue and costs in accordance with SB-FRS 11 *Construction Contracts*, ie by reference to the stage of completion of the construction. It measures contract revenue at the fair value of the consideration received or receivable. Thus in each of years 1 and 2 it recognises in its profit or loss construction costs of CU500, construction revenue of CU525 (cost plus 5 per cent) and, hence, construction profit of CU25.

Toll revenue

IE18 The road users pay for the public services at the same time as they receive them, ie when they use the road. The operator therefore recognises toll revenue when it collects the tolls.

Resurfacing obligations

IE19 The operator's resurfacing obligation arises as a consequence of use of the road during the operating phase. It is recognised and measured in accordance with SB-FRS 37 *Provisions, Contingent Liabilities and Contingent Assets*, ie at the best estimate of the expenditure required to settle the present obligation at the end of the reporting period.

IE20 For the purpose of this illustration, it is assumed that the terms of the operator's contractual obligation are such that the best estimate of the expenditure required to settle the obligation at any date is proportional to the number of vehicles that have used the road by that date and increases by CU17 (discounted to a current value) each year. The operator discounts the provision to its present value in accordance with SB-FRS 37. The charge recognised each period in profit or loss is:

Table 2.3 ***Resurfacing obligation*** *(currency units)*

Year	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
Obligation arising in year (CU17 discounted at 6%)	12	13	14	15	16	17	87
Increase in earlier years' provision arising from passage of time	0	1	1	2	4	5	13
Total expense recognised in profit or loss	12	14	15	17	20	22	100

Overview of cash flows, statement of comprehensive income and statement of financial position

IE21 For the purposes of this illustration, it is assumed that the operator finances the arrangement wholly with debt and retained profits. It pays interest at 6.7 per cent per year on outstanding debt. If the cash flows and fair values remain the same as those forecast, the operator's cash flows, statement of comprehensive income and statement of financial position over the duration of the arrangement will be:

Table 2.4 ***Cash flows*** *(currency units)*

Year	1	2	3	4	5	6	7	8	9	10	Total
Receipts	-	-	200	200	200	200	200	200	200	200	1,600
Contract costs[10]	(500)	(500)	(10)	(10)	(10)	(10)	(10)	(110)	(10)	(10)	(1,180)
Borrowing costs[11]	-	(34)	(69)	(61)	(53)	(43)	(33)	(23)	(19)	(7)	(342)
Net inflow/ (outflow)	(500)	(534)	121	129	137	147	157	67	171	183	78

Table 2.5 ***Statement of comprehensive income*** *(currency units)*

Year	1	2	3	4	5	6	7	8	9	10	Total
Revenue	525	525	200	200	200	200	200	200	200	200	2,650
Amortisation	-	-	(135)	(135)	(136)	(136)	(136)	(136)	(135)	(135)	(1,084)
Resurfacing expense	-	-	(12)	(14)	(15)	(17)	(20)	(22)	-	-	(100)
Other contract costs	(500)	(500)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(1,080)
Borrowing costs[12,13]	-	-	(69)	(61)	(53)	(43)	(33)	(23)	(19)	(7)	(308)
Net profit	25	25	(26)	(20)	(14)	(6)	1	9	36	48	78

Table 2.6 ***Statement of financial position*** *(currency units)*

End of year	1	2	3	4	5	6	7	8	9	10
Intangible asset	525	1,084	949	814	678	542	406	270	135	-
Cash/(debt)[14]	(500)	(1,034)	(913)	(784)	(647)	(500)	(343)	(276)	(105)	78
Resurfacing obligation	-	-	(12)	(26)	(41)	(58)	(78)	-	-	-
Net assets	25	50	24	4	(10)	(16)	(15)	(6)	30	78

[10] Table 2.1

[11] Debt at start of year (table 2.6) × 6.7%

[12] Borrowing costs are capitalised during the construction phase.

[13] Table 2.4

[14] Debt at start of year plus net cash flow in year (table 2.4)

IE22 This example deals with only one of many possible types of arrangements. Its purpose is to illustrate the accounting treatment for some features that are commonly found in practice. To make the illustration as clear as possible, it has been assumed that the arrangement period is only ten years and that the operator's annual receipts are constant over that period. In practice, arrangement periods may be much longer and annual revenues may increase with time. In such circumstances, the changes in net profit from year to year could be greater.

Example 3: The grantor gives the operator a financial asset and an intangible asset

Arrangement terms

IE23 The terms of a service arrangement require an operator to construct a road—completing construction within two years—and to operate the road and maintain it to a specified standard for eight years (ie years 3–10). The terms of the arrangement also require the operator to resurface the road when the original surface has deteriorated below a specified condition. The operator estimates that it will have to undertake the resurfacing at the end of year 8. At the end of year 10, the arrangement will end. The operator estimates that the costs it will incur to fulfil its obligations will be:

Table 3.1 *Contract costs*

	Year	**CU**[15]
Construction services	1	500
	2	500
Operation services (per year)	3–10	10
Road resurfacing	8	100

IE24 The operator estimates the consideration in respect of construction services to be cost plus 5 per cent.

IE25 The terms of the arrangement allow the operator to collect tolls from drivers using the road. In addition, the grantor guarantees the operator a minimum amount of CU700 and interest at a specified rate of 6.18 per cent to reflect the timing of cash receipts. The operator forecasts that vehicle numbers will remain constant over the duration of the contract and that it will receive tolls of CU200 in each of years 3–10.

IE26 For the purpose of this illustration, it is assumed that all cash flows take place at the end of the year.

Dividing the arrangement

IE27 The contractual right to receive cash from the grantor for the services and the right to charge users for the public services should be regarded as two separate assets under SB-FRSs. Therefore in this arrangement it is necessary to divide the operator's consideration into two components—a financial asset component based on the guaranteed amount and an intangible asset for the remainder.

[15] In this example, monetary amounts are denominated in 'currency units (CU)'.

Table 3.2 ***Dividing the operator's consideration***

Year	Total	Financial asset	Intangible asset
Construction services in year 1 (CU500 × (1 + 5%))	525	350	175
Construction services in year 2 (CU500 × (1 + 5%))	525	350	175
Total construction services	1,050	700	350
	100%	*67%*[16]	*33%*
Finance income, at specified rate of 6.18% on receivable (see table 3.3)	22	22	-
Borrowing costs capitalised (interest paid in years 1 and 2 × 33%) (see table 3.7)	11	-	11
Total fair value of the operator's consideration	1,083	722	361

Financial asset

IE28 The amount due from or at the direction of the grantor in exchange for the construction services meets the definition of a receivable in SB-FRS 39 *Financial Instruments: Recognition and Measurement*. The receivable is measured initially at fair value. It is subsequently measured at amortised cost, ie the amount initially recognised plus the cumulative interest on that amount minus repayments.

IE29 On this basis the receivable recognised at the end of years 2 and 3 will be:

Table 3.3 ***Measurement of receivable***

	CU
Construction services in year 1 allocated to the financial asset	350
Receivable at end of year 1	350
Construction services in year 2 allocated to the financial asset	350
Interest in year 2 on receivable at end of year 1 (6.18% × CU350)	22
Receivable at end of year 2	722
Interest in year 3 on receivable at end of year 2 (6.18% × CU722)	45
Cash receipts in year 3 (see table 3.5)	(117)
Receivable at end of year 3	650

Intangible asset

IE30 In accordance with SB-FRS 38 *Intangible Assets*, the operator recognises the intangible asset at cost, ie the fair value of the consideration received or receivable.

[16] Amount guaranteed by the grantor as a proportion of the construction services

IE31 During the construction phase of the arrangement the operator's asset (representing its accumulating right to be paid for providing construction services) is classified as a right to receive a licence to charge users of the infrastructure. The operator measures the fair value of its consideration received or receivable as equal to the forecast construction costs plus 5 per cent, which the operator concludes is consistent with the rate that a market participant would require as compensation for providing the construction services and for assuming the risk associated with the construction costs. It is also assumed that, in accordance with SB-FRS 23 *Borrowing Costs*, the operator capitalises the borrowing costs, estimated at 6.7 per cent, during the construction phase:

Table 3.4 ***Initial measurement of intangible asset***

	CU
Construction services in year 1 (CU500 x (1 + 5%) × 33%)	175
Borrowing costs (interest paid in years 1 and 2 × 33%) (see table 3.7)	11
Construction services in year 2 (CU500 x (1 + 5%) × 33%)	175
Intangible asset at the end of year 2	361

IE32 In accordance with SB-FRS 38, the intangible asset is amortised over the period in which it is expected to be available for use by the operator, ie years 3–10. The depreciable amount of the intangible asset (CU361 including borrowing costs) is allocated using a straight-line method. The annual amortisation charge is therefore CU361 divided by 8 years, ie CU45 per year.

Contract revenue and costs

IE33 The operator provides construction services to the grantor in exchange for a financial asset and an intangible asset. Under both the financial asset model and intangible asset model, the operator recognises contract revenue and costs in accordance with SB-FRS 11 *Construction Contracts*, ie by reference to the stage of completion of the construction. It measures contract revenue at the fair value of the consideration receivable. Thus in each of years 1 and 2 it recognises in profit or loss construction costs of CU500 and construction revenue of CU525 (cost plus 5 per cent).

Toll revenue

IE34 The road users pay for the public services at the same time as they receive them, ie when they use the road. Under the terms of this arrangement the cash flows are allocated to the financial asset and intangible asset in proportion, so the operator allocates the receipts from tolls between repayment of the financial asset and revenue earned from the intangible asset:

Table 3.5 ***Allocation of toll receipts***

Year	**CU**
Guaranteed receipt from grantor	700
Finance income (see table 3.8)	237
Total	937
Cash allocated to realisation of the financial asset per year (CU937/8 years)	**117**
Receipts attributable to intangible asset (CU200 x 8 years – CU937)	663
Annual receipt from intangible asset (CU663/8 years)	**83**

Resurfacing obligations

IE35 The operator's resurfacing obligation arises as a consequence of use of the road during the operation phase. It is recognised and measured in accordance with SB-FRS 37 *Provisions, Contingent Liabilities and Contingent Assets*, ie at the best estimate of the expenditure required to settle the present obligation at the end of the reporting period.

IE36 For the purpose of this illustration, it is assumed that the terms of the operator's contractual obligation are such that the best estimate of the expenditure required to settle the obligation at any date is proportional to the number of vehicles that have used the road by that date and increases by CU17 each year. The operator discounts the provision to its present value in accordance with SB-FRS 37. The charge recognised each period in profit or loss is:

Table 3.6 ***Resurfacing obligation*** *(currency units)*

Year	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
Obligation arising in year (CU17 discounted at 6%)	12	13	14	15	16	17	87
Increase in earlier years' provision arising from passage of time	0	1	1	2	4	5	13
Total expense recognised in profit or loss	12	14	15	17	20	22	100

Overview of cash flows, statement of comprehensive income and statement of financial position

IE37 For the purposes of this illustration, it is assumed that the operator finances the arrangement wholly with debt and retained profits. It pays interest at 6.7 per cent per year on outstanding debt. If the cash flows and fair values remain the same as those forecast, the operator's cash flows, statement of comprehensive income and statement of financial position over the duration of the arrangement will be:

Table 3.7 ***Cash flows*** *(currency units)*

Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Total**
Receipts	-	-	200	200	200	200	200	200	200	200	1,600
Contract costs[17]	(500)	(500)	(10)	(10)	(10)	(10)	(10)	(110)	(10)	(10)	(1,180)
Borrowing costs[18]	-	(34)	(69)	(61)	(53)	(43)	(33)	(23)	(19)	(7)	(342)
Net inflow/ (outflow)	(500)	(534)	121	129	137	147	157	67	171	183	78

[17] Table 3.1
[18] Debt at start of year (table 3.9) × 6.7%

Table 3.8 ***Statement of comprehensive income*** *(currency units)*

Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Total**
Revenue on construction	525	525	-	-	-	-	-	-	-	-	1,050
Revenue from intangible asset	-	-	83	83	83	83	83	83	83	83	663
Finance income[19]	-	22	45	40	35	30	25	19	13	7	237
Amortisation	-	-	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(46)	(361)
Resurfacing expense	-	-	(12)	(14)	(15)	(17)	(20)	(22)	-	-	(100)
Construction costs	(500)	(500)									(1,000)
Other contract costs[20]			(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(80)
Borrowing costs (table 3.7)[21]	-	(23)	(69)	(61)	(53)	(43)	(33)	(23)	(19)	(7)	(331)
Net profit	25	24	(8)	(7)	(5)	(2)	0	2	22	27	78

Table 3.9 ***Statement of financial position*** *(currency units)*

End of year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Receivable	350	722	650	573	491	404	312	214	110	-
Intangible asset	175	361	316	271	226	181	136	91	46	-
Cash/(debt)[22]	(500)	(1,034)	(913)	(784)	(647)	(500)	(343)	(276)	(105)	78
Resurfacing obligation	-	-	(12)	(26)	(41)	(58)	(78)	-	-	-
Net assets	25	49	41	34	29	27	27	29	51	78

IE38 This example deals with only one of many possible types of arrangements. Its purpose is to illustrate the accounting treatment for some features that are commonly found in practice. To make the illustration as clear as possible, it has been assumed that the arrangement period is only ten years and that the operator's annual receipts are constant over that period. In practice, arrangement periods may be much longer and annual revenues may increase with time. In such circumstances, the changes in net profit from year to year could be greater.

[19] Interest on receivable
[20] Table 3.1
[21] In year 2, borrowing costs are stated net of amount capitalised in the intangible (see table 3.4).
[22] Debt at start of year plus net cash flow in year (table 3.7)