Ind AS
Worked Example

Calculation of **Equity-settled** and **Cash-settled** Share-Based Payments

Worked Example: Ind AS 102 – Calculation of Equity-Settled and Cash-settled Share-Based Payments

Introduction

CMV is an automotive company based in India. They manufacture automobiles, bikes and engines. CMV's reporting period ends on 31 March each year. On 1 April 20x2, CMV grants 6 equity-settled share-based options to each of his 100 employees – conditional upon the employee working for next 3 years, ie, upto 31 March 20x5. CMV estimates that 20% of the employees will leave during the period of 3 years.

In 20x2-x3, 8 employees leave and, in effect, the estimate is revised from 20% to 10%.
In 20x3-x4, 7 employees leave and, in effect, the estimate is revised from 10% to 20%.
In 20x4-x5, 10 employees leave.

The exercise price is CU 5 per option and the income tax rate is 40%.

Additional information –

	1 Apr 20x2	31 Mar 20x3	31 Mar 20x4	31 Mar 20x5
Fair value of an option (CU)	4	5	6	7
Share price of CMV (CU)	8	10	12	15

Equity-settled share-based payments

What the Standard says

According to **paragraph 10 of Ind AS 102**, "*For equity-settled share-based payment transactions, the entity shall measure the services received, and the corresponding increase in equity, directly, at the fair value of the services required, unless that fair value cannot be estimated reliably. If the entity cannot estimate reliably the fair value of the services received, the entity, indirectly, by reference to the fair value of the equity instruments granted.*"

Equity-settled share-based payments are recognised from the grant date, ie, the date when the entity confers on the other party (in the case, employees) the right to equity instruments. Therefore, the fair value of those equity instruments shall be measured at grant date.

The following is the application of requirements –

Period	Number of options	Fair Value per option (CU)	Intrinsic value per option (CU)	Remuneration expense created from (CU) –				
				Profit or loss	Retained earnings	Deferred tax asset	Total	Cumulative
20x2-x3	600 x 90% = 540	4	10 – 5 = 5	720 [1]	108 [2]	72 [3]	900	900
20x3-x4	600 x 80% = 480	4	12 – 5 = 7	560 [4]	468 [5]	312 [6]	1,340	2,240
20x4-x5	600 x 75% = 450	4	15 – 5 = 10	520 [7]	1,044 [8]	696 [9]	2,260	4,500

^{1} (540 x CU 4 ÷ 3)

^{2} [{(540 x CU 5 ÷ 3) – CU 720} x 60%]

^{3} [{(540 x CU 5 ÷ 3) – CU 720} x 40%]

^{4} [(480 x CU 4 x ⅔) – CU 720]

^{5} [{(480 X CU 7 x ⅔) – CU (900 + 560)} x 60%]

^{6} [{(480 X CU 7 x ⅔) – CU (900 + 560)} x 40%]

^{7} [(450 x CU 4) – CU (720 + 560)]

^{8} [{(450 x CU 10) – CU (2,240 + 520)} x 60%]

^{9} [{(450 x CU 10) – CU (2,240 + 520)} x 40%]

Equity-settled Share-based Payment reserve (CU)

Date	Heads of Account	Dr	Cr	Balance
20x3				
Mar 31	Remuneration expense		720	720
	Retained earnings		108	828
	Deferred tax asset		72	900
20x4				
Mar 31	Remuneration expense		560	1,460
	Retained earnings		468	1,928
	Deferred tax asset		312	2,240
20x5				
Mar 31	Remuneration expense		520	2,760
	Retained earnings		1,044	3,804
	Deferred tax asset		696	4,500
	Cash (450 x CU 5)		2,250	6,750
	Share Capital (450 x CU 10)	4,500		2,250
	Share premium (450 x CU 5)	2,250		–

Cash-settled share-based payments

Now, we assume that CMV grants cash-settled equity-based options, other things remaining the same.

What the standard says

According to **paragraph 30 of Ind AS 102**, "*For cash-settled share-based payment transactions, the entity shall measure the services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the entity shall remeasure the fair value of the liability at the end of each reporting period and at the end of settlement, with any changes in fair value recognised in profit or loss for the period.*"

The following is the application of requirements –

Period	Number of options	Fair value per option (CU)	Intrinsic value per option (CU)	Remuneration expense created from (CU) –				
				Profit or loss	Retained earnings	Deferred tax asset	Total	Cumulative
20x2-x3	600 x 90% = 540	5	10	900 [1]	540 [2]	360 [3]	1,800	1,800
20x3-x4	600 x 80% = 480	6	12	1,020 [4]	612 [5]	408 [6]	2,040	3,840
20x4-x5	600 x 75% = 450	7	15	1,230 [7]	1,008 [8]	672 [9]	2,910	6,750

Calculation:

[1] (540 x CU 5 ÷ 3)
[2] [{(540 x CU 10 ÷ 3) – CU 900} x 60%]
[3] [{(540 x CU 10 ÷ 3) – CU 900} x 40%]
[4] [(480 x CU 6 x ⅔) – CU 900]
[5] [{(480 X CU 12 x ⅔) – CU (1,800 + 1,020)} x 60%]
[6] [{(480 X CU 12 x ⅔) – CU (1,800 + 1,020)} x 40%]
[7] [(450 x CU 7) – CU (900 + 1,020)]
[8] [{(450 x CU 15) – CU (3,840 + 1,230)} x 60%]
[9] [{(450 x CU 15) – CU (3,840 + 1,230)} x 40%]

Liability for Cash-settled Share-based Payment (CU)

Date	Heads of Account	Dr	Cr	Balance
20x3				
Mar 31	Remuneration expense		900	900
	Retained earnings		540	1,440
	Deferred tax asset		360	1,800
20x4				
Mar 31	Remuneration expense		1,020	2,820
	Retained earnings		612	3,432
	Deferred tax asset		408	3,840
20x5				
Mar 31	Remuneration expense		1,230	5,070
	Retained earnings		1,008	6,078
	Deferred tax asset		672	6,750
	Cash	6,750		–