

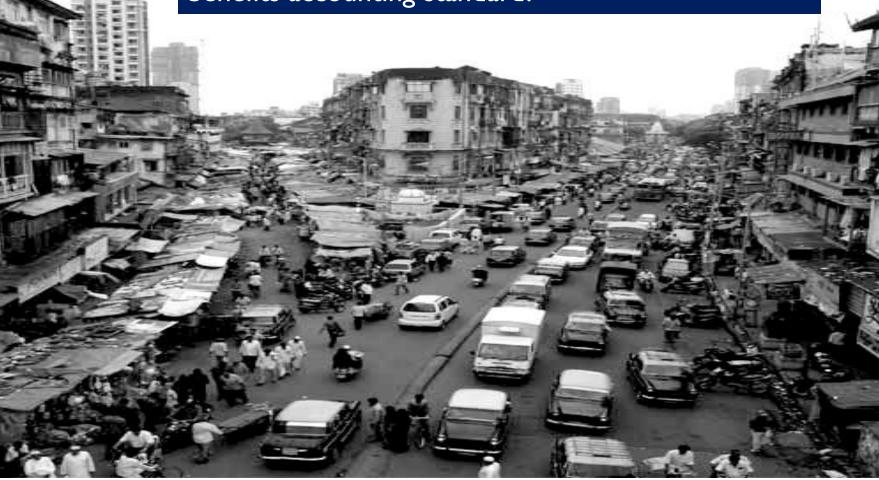
Ind AS 19, Employee Benefits

WIRC of ICAI Seminar 27 March 2015

Mayur Ankolekar FIAI, FIA, FCA

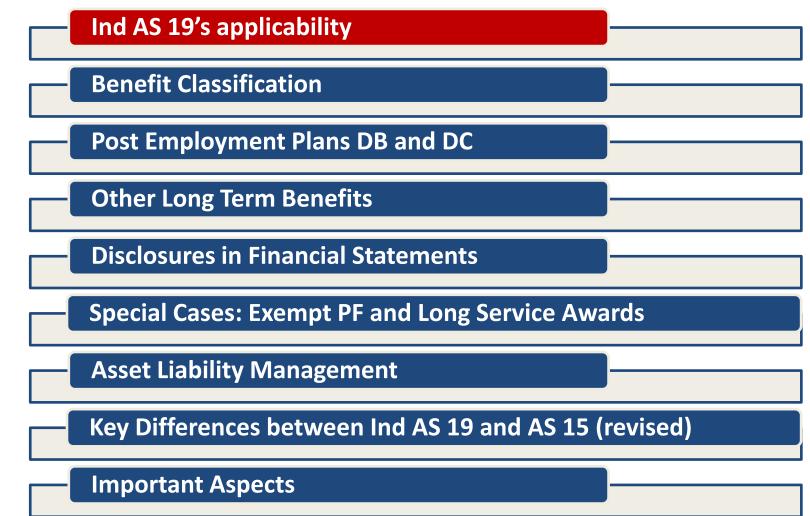


There's a method to the madness of the employee benefits accounting standard!





Today's discussion





Entity Applicability

MCA Notification dated Feb 16, 2015

FY 2016-17 listed and unlisted companies both with net worth above Rs 500 crores

FY 2017-18

listed companies and unlisted companies with net worth above Rs 250 crores



Entity Applicability AS 15 (R)

AS15 is applicable in its **entirety** to the following enterprises:

1. Equity or Debt securities are listed or are in the process of being listed

2. Carrying on Insurance business

3.Turnover > Rs50 cr

4.Borrowings > Rs10 cr at any instance during the year

5.Banks (incl co-operative banks)

6.Financial Institutions

7.Holding or subsidiary company of any of the above

Companies not falling within clauses 1 to 7 are classified as **Small and Medium Enterprises (SMEs).**

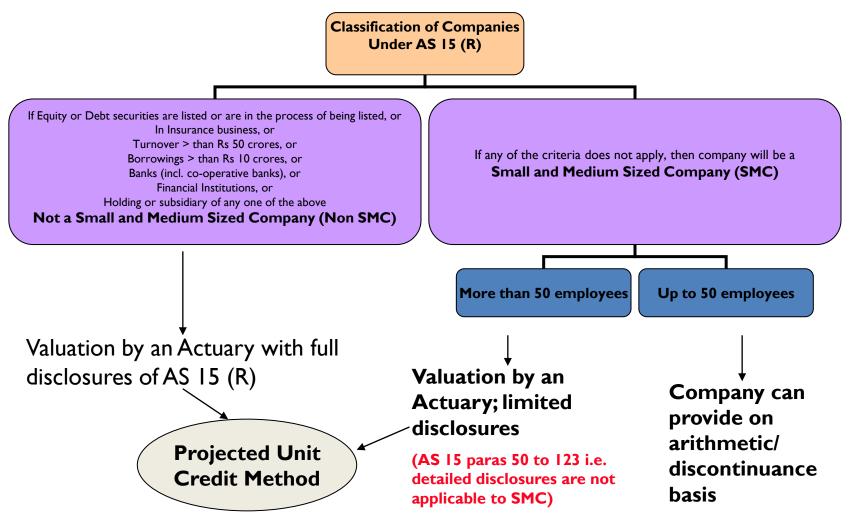
SMEs with employees above 50 need to apply the standard restrictively i.e. limited disclosures but value liabilities actuarially.

SMEs with employees below 50 may provide liabilities on an arithmetic basis i.e. apply standard restrictively with limited disclosure and also not have liabilities valued actuarially.

Applicability of Actuarial Valuation to

Post Employment Defined Benefit & Other Long-term Plans

Ankolekar & Co. Actuaries



© 2015 Ankolekar & Co.All rights reserved.



Actuaries

Need for an Actuary under Ind AS 19?

Extracts from paragraphs 59 and 67 of Ind AS 19:

59. This Standard encourages, but does not require, an entity to involve a qualified actuary in the measurement of all material post-employment benefit obligations....

67. An entity shall use the projected unit credit method to determine the present value of its defined benefit obligations



Assumption Setting

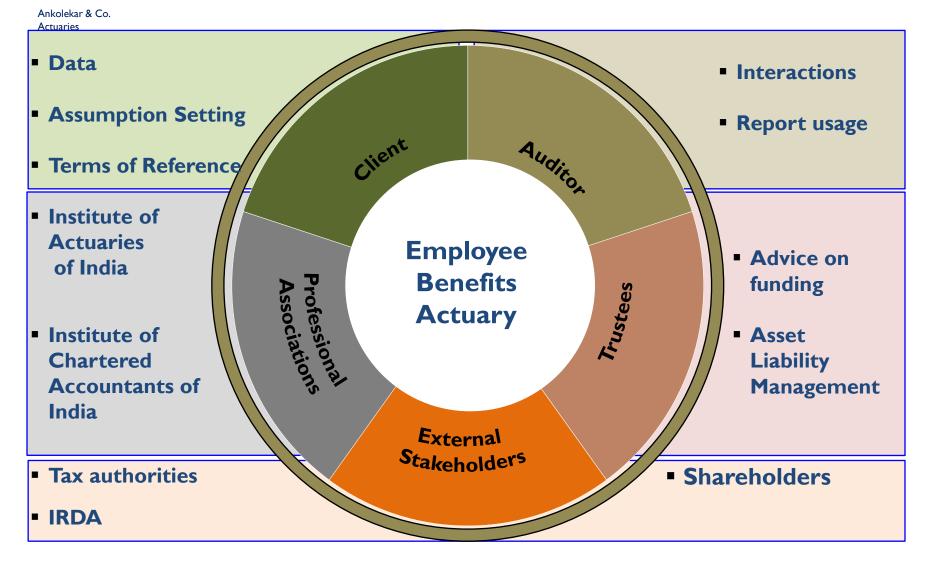
Under paragraph 76, the demographic and financial assumptions (salary increase, expected inflation, claim rates under medical plans, withdrawal rate, etc) are those of the employer.

As these are vetted by the actuary (reference to APS 26 of the Institute of Actuaries of India).

An actuarial valuation is usually a joint effort of employer and actuary.

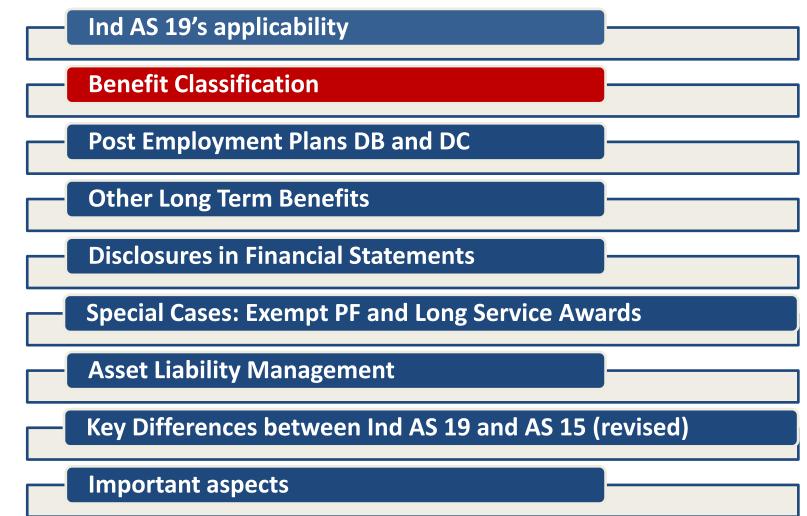


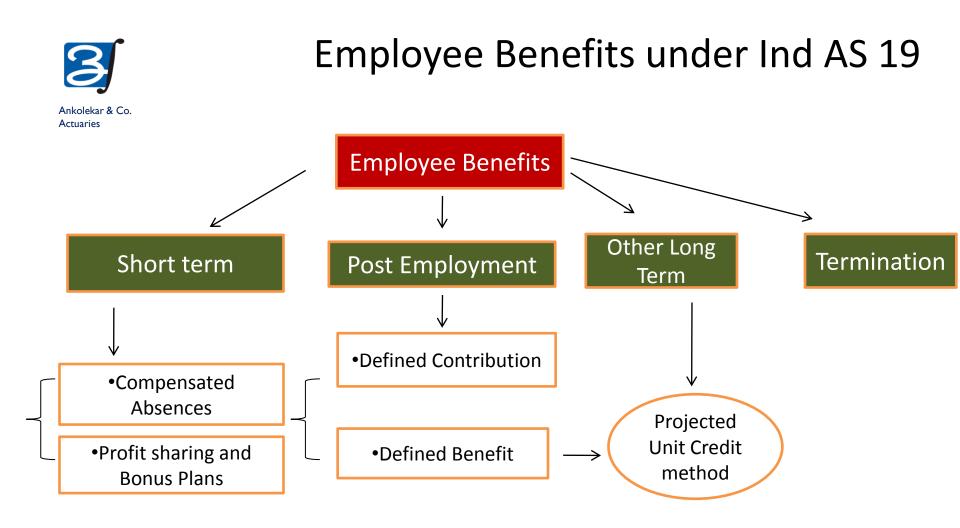
Spectrum of Stakeholders

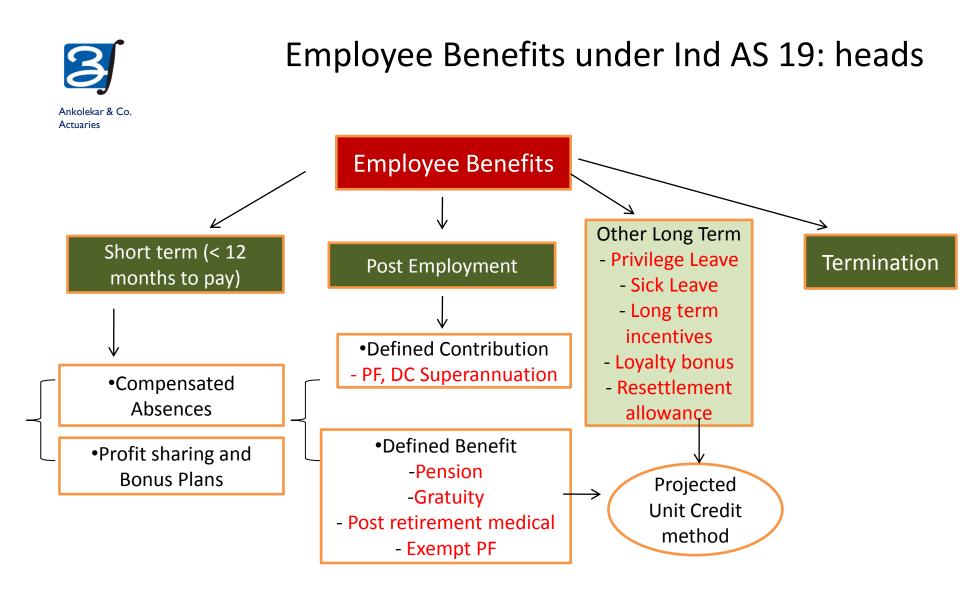


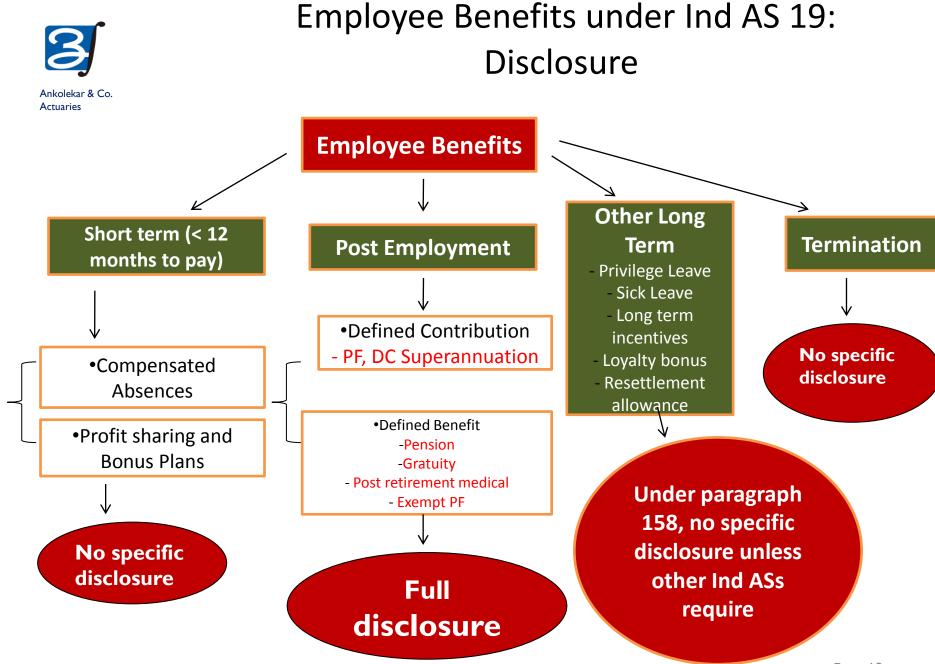


Today's discussion





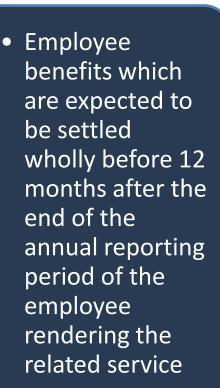




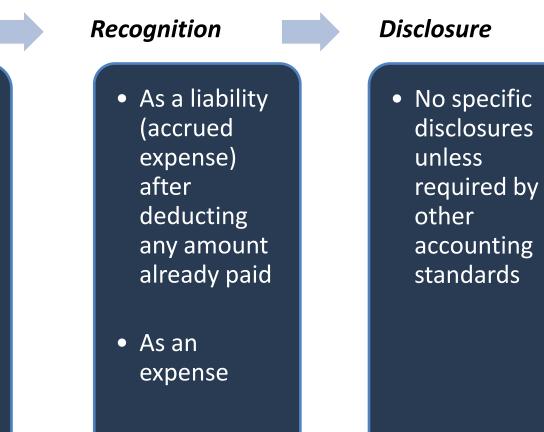
© 2015 Ankolekar & Co. All rights reserved.



Short Term Employee Benefits



Definition





Short Term Employee Benefits

Accumulating Compensated Absences e.g. privilege leave which can be accumulated for 1 year only	When services rendered increase their entitlement to future compensated absences
<i>Non-accumulating compensated absences</i> e.g. maternity and paternity leave	When absences occur
Profit-sharing and bonus plans	When a present obligation to make such payment arises as a result of past events e.g. annual incentive, MD's commission.

Expected cost of **accumulating compensated absences** - additional amount that the enterprise expects to pay as a result of the unused entitlement that has accumulated at the balance sheet date.



Termination Benefits

Termination benefits are employee benefits payable as a result of

Employer's decision to terminate an employee's employment, which is not conditional on future service being provided

Recognition (When?)

An enterprise should **recognize** termination benefits as a liability and an expense at the earlier of the following dates:

- 1. The entity can no longer withdraw the offer for those benefits
- 2. The entity recognizes restructuring costs within the scope of Ind AS 37 and involves the payment of termination benefits



Actuaries

Termination Benefits .. Contd.

Measurement

Benefits that are expected to be settled 12 months after B/S date should be discounted using the logic of other Long-term Benefits,

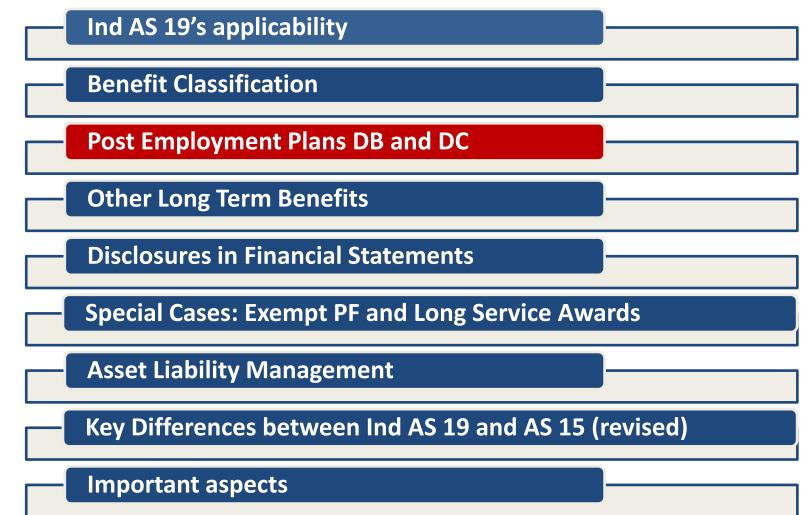
Else should be recognized using requirement of Short-term Benefits

Disclosure

No specific disclosure unless other Ind ASs require.



Today's discussion





Post Employment Benefits

Post Employment Benefits include:

- a. Retirement Benefits e.g. Gratuity and Pension
- b. Other Benefits e.g. Post employment medical care

Defined	Contri	bution	Plans
Dennea			

- Obligation is limited to the amount contributed to the fund
- 2. Risk (Actuarial and Investment) fall on the employee

E.g. Superannuation, Provident Fund

Defined Benefit Plans

- Obligation is to provide agreed
 benefits to the employees
- 2. Risk (Actuarial and Investment) falls on the enterprise
- E.g. Pension, Gratuity, Post employment Medical Benefits, Exempt PF



Post Employment Benefits Defined Contribution Plan Recognition and disclosure

Defined contribution plans are post-employment benefit plans under which an **entity pays fixed contributions** into a separate entity (a fund) and will **have no legal or constructive obligation to pay further contributions** if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

Contribution should be recognized as a liability (accrued expense), after deducting any contribution already paid by employee, and correspondingly as an expense

Examples: Provident Fund (not self-managed), DC Superannuation



Post-employment Benefits: Defined Benefit Plans

Examples: Pension, Gratuity, Medical Benefits

Net Defined Benefit Liability (Asset) is equal to:

Defined Benefit Obligation (DBO) at the balance sheet date

Less: Fair Value of Plan Assets

Calculation of the DBO is the first step in Actuarial Valuation!

DBO is the Present Value of the obligation of the company towards its employees for their services rendered over a period of time



Actuarial Assumptions

Ankolekar &	Co.	
Actuaries	Financial Assumptions	Der
	•Discount rate	Mortalit
	•Salary escalation	Attrition
	 Medical cost Inflation 	Disabilit

mographic Assumptions

ty

n/ withdrawal

Assumptions should be **mutually compatible** e.g. inflation and salary increase rate.

Discount rate should be determined by reference to market yields on government bonds (paragraph 83, Ind AS 19). Subsidiaries, associates, joint ventures and branches outside India could use yields on high quality corporate bonds, if the market is deep

Weighted expected remaining lifetime of employees is calculated to track the appropriate YTM, which becomes the discount rate.



Actuarial Assumptions .. Contd.

Ankolekar & Co. Actuaries

Financial Assumptions

•Discount rate

Salary escalation

Medical cost Inflation

Demographic Assumptions

Mortality

Attrition/ withdrawal

Disability

Actuarial assumptions are an enterprise's **best estimates** of the variables that will determine the ultimate cost of providing post-employment benefits (paragraph 76, Ind AS 19)

Financial assumption of **salary increase rate** should be based on market expectations **at the balance sheet date** for the period over which the obligations are to be settled (paragraph 80, Ind AS 19)

Expected return on plan assets is now not applicable, **interest should be recognized on net liability (asset)** at the discount rate used in the previous year (paragraph 123, Ind AS 19)



DBO Reconciliation between two valuation dates

- a) Current Service cost
- b) Interest cost
- c) Past Service cost
- d) Settlement
- e) (Curtailment)
- f) Acquisition/ (Divestiture)
- g) Transfer in/ (Transfer out)
- h) Actuarial (gains)/losses or Re-measurements

Closing DBO and Opening DBO needs to be reconciled through these movements!



Projected Unit Credit Method

An enterprise should use the Projected Unit Credit Method to determine the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost (paragraph 67, Ind AS 19).

The Projected Unit Credit Method (sometimes known as the accrued benefit method pro-rated on service or as the benefit/ years of service method) sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation (paragraph 68, Ind AS 19).

Let us see an example



An example of y-o-y DBO

Ankolekar & Co. Actuaries

Benefit is ½ month's salary for every yr served. Vesting period is 5 yr. Normal retirement age is 60 yr. Assumption of zero withdrawal or death.

Yr	Age	Yr served	Salary rise rate	Discount rate	Salary p.m.	Discontinua nce liability	Actuarial liability
0	50 yr	5	10% pa	10% pa	100,000	250,000	250,000
1	51 yr	6	10% pa	10% pa	110,000	330,000	330,000

Assumption of yr 0 was continued in yr 1. Experience in yr 1 is as per assumption. In short, we had no deviation either in actual experience or assumptions. **Opening DBO 250,00**

No actuarial gain/ loss arises.

Reconciliation of DBO reads:

Opening DBO	250,000
Service cost (110,000 x ½)	55,000
Interest cost (250,000 x 10%)	25,000
Closing DBO	330,000

A modified example of y-o-y DBO

3

Ankolekar & Co. Actuaries

⁶ Benefit is ½ month's salary for every yr served. Vesting period is 5 yr. Normal retirement age is 60 yr. Assumption of zero withdrawal or death.

Yr	Age	Yr served	Salary rise rate	Discount rate	Salary p.m.	Discontinua nce liability	Actuaria liability
0	50 yr	5	10% pa	11% pa	100,000	250,000	228,370
1	51 yr	6	10% pa	9% pa	110,000	330,000	357,970

Assumption of yr 0 was changed in yr 1.

Experience in yr 1 is as per assumption.

In short, we had a deviation only due to change of assumption.

Actuarial gain/ loss arises.

Reconciliation of DBO reads:

Opening DBO	228,370
Service cost (110,000 x ½ x 1.1 ÷1.09)	55,500
Interest cost (228,370 x 11%)	25,121
Actuarial loss	48,979
Closing DBO	357,970

330000 x

(1.1/ 1.09)^9



Past Service Cost

Arises when a plan amendment or curtailment occurs

Plan amendment

New plan introduced or upward revision in benefits

Curtailment

Significant reduction in employees on an isolated event

Under Ind AS 19, past service cost should be **immediately recognized** and not amortized over the vesting period.

Position has changed from AS 15!!

If ceiling on gratuity benefits increases, the costs will need to be recognized immediately under Ind AS 19



Settlement occurs when an enterprise enters into a transaction that eliminates all further obligations for part or all of the benefits provided under a defined benefit plan.

Example, one-off transfer of significant employer obligations to an insurance company

RECOGNISE COST/ INCOME IMMEDIATELY

paragraph 110 of Ind AS 19)



In a **Settlement and Curtailment**, a loss/ (gain) will arise if the net discount rate {discount rate minus salary escalation rate} is positive/ (negative) and the liability was transferred at discontinuance value





Remeasurements

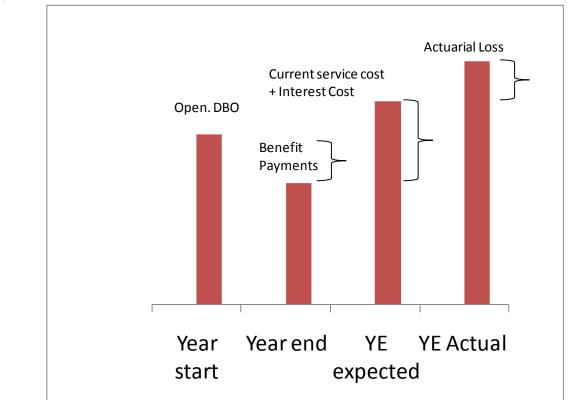
Re-measurements include:

- a. Actuarial Gains and Losses
- b. Return on plan assets over/ (below) the net interest on the net Defined Benefit Liability/ (Asset)
- c. Change in the effect of asset ceiling



Actuarial Loss/Gain: Liability

Ankolekar & Co. Actuaries



Actuarial Loss/(Gain)=Closing DBO+ Benefit Payments-(Open. DBO+ Interest Cost + Current Service cost)



Actuarial Gains and Losses

Actuarial gains and losses (paragraph 128) may result from increases or decreases in either the present value of a defined benefit obligation or the fair value of plan assets.

Causes are:

(a) unexpectedly high or low rates of employee turnover, early retirement or mortality or of increases in salaries, benefits or medical costs;

(b) the effect of changes in estimates of future employee turnover, early retirement or mortality or of increases in salaries, benefits or medical costs;

(c) the effect of changes in assumptions concerning benefit payment options, and

(d) the effect of changes in the discount rate; and

(a) is an Experience Gain/ Loss



(b), (c) and (d) are Assumption Change Gains/ Losses



Setting assumptions

Consistent actuarial losses due to experience are a pointer toward **sub-optimal assumption setting.**

Under AS 15, a five-year experience loss/ (gain) history had to be disclosed.

Under Ind AS 19, no disclosure on experience loss/ (gain) is necessary!



For purposes of AS 15, the Institute of Actuaries of India has issued the following Actuarial Practice Standards (APS)

APS 26: Actuarial Reports under ICAI's AS 15 (R)

APS 28: Other Employee Benefits

APS 29: Valuation of Interest rate guarantees of exempt provident funds

http://www.actuariesindia.org/subMenu.aspx?id=43&val=Actuarial_Practice_ Standards



Reading the Disclosures, AS 15

DBO	Year ended Dec 2014	Fair Value of Assets	Year ended Dec 2014
Present Value of DBO at start of period	100	Fair Value at start of period	80
Current Service Cost	20	Contributions By Employer	40
Past Service Cost	10	Benefits Paid	(25)
Interest Cost	8	Expected Return on Plan Assets	10
Benefits Paid	(25)	Actuarial (Loss)/Gain	(2)
Actuarial Loss/(Gain)	(8)		103
Present Value of DBO at end of period	105	Fair Value at end of period	
Employer Expense	Year ended Dec 2014	Movement	Year ended Dec 2014
Current Service Cost	20		
Interest Cost	8	Opening Net Liability (100 – 80)	20
Past Service Cost	10	Add: Employer Expense	22
Expected Return on Plan Assets	(10)	Less: Employer Contribution	(40)
Actuarial Loss/(Gain)	(6)	Less. Employer Contribution	(40)
Employer Expense	22	Closing Net Liability (105 -103)	2



Reading the Disclosures, AS 15

DBO	Year ended Dec 2014		Fair Value of Assets	Year ended Dec 2014
Present Value of DBO at start of period	100		Fair Value at start of period	80
Current Service Cost	20	K	Contributions By Employer	40
Past Service Cost	10]	Renefits Paid	(25)
Interest Cost	8		Expected Return on Plan Assets	10
Benefits Paid	(25)		Actuarial (Loss)/Gain	(2)
Actuarial Loss/(Gain)	(8)			/ 103
Present Value of DBO at end of period	105		Fair Value at end of period	
Employer Expense	Year ended Dec 2014	$\left \right $	Movement	Year ended Dec 2014
Current Service Cost	20]		
Interest Cost	8	1	Opening Net Liability (100 – 80)	/ 20
Past Service Cost	10		Add: Employer Ex pense	\rightarrow 22
Expected Return on Plan Assets	(10)		Less: Employer Contribution	(40)
Actuarial Loss/(Gain)	(6)			(0)
Employer Expense	22		Closing Net Liability (105 - 103)	2



Reading the Disclosures, Ind AS 19

Ankolekar & Co. Actuaries

DBO	Dec 2014
Present Value of DBO at start of period	100
Current Service Cost	20
Past Service Cost	10
Interest Cost	8
Benefits Paid	(25)
Actuarial Loss/(Gain)	(8)
Present Value of DBO at end of period	105

Employer Expense	Dec 2014
Current Service Cost	20
Interest Cost on net DBO	2
Past Service Cost	10
Employer Expense (P&L)	32

Fair Value of Assets	Dec 2014
Fair Value at start of period	80
Contributions by Employer	40
Benefits Paid	(25)
Interest Income	6
Returns above Interest Income	2
Fair Value at end of period	103

Re-measurements	Dec 2014
Actuarial Loss/(Gain) on DBO	(8)
Returns above Interest Income	(2)
Total Re-measurements (OCI)	(10)

Movement	Dec 2014
Opening Net Liability (100 – 80)	20
Add: Employer Expense	32
Less: Transfer to OCI	(10)
Less: Employer Contribution	(40)
Closing Net Liability (105 -103)	2



Ind AS 19 and AS 15 The changed position

Ind AS 19

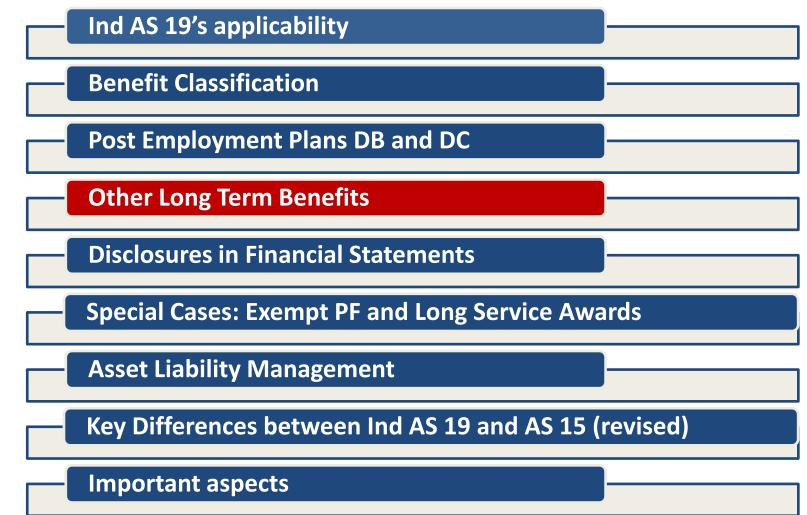
ŀ	٩S	15

Movement	Dec
	2014
Opening Net Liability	
(100 - 80)	20
Add: Employer Expense	32
Less: Transfer to OCI	(10)
Less: Employer	
Contribution	(40)
Closing Net Liability (105	
-103)	2

Movement

Movement	Dec 2014
Opening Net Liability	
(100 - 80)	20
Add: Employer Expense	22
Less: Employer	
Contribution	(40)
Closing Net Liability	
(105 -103)	2







Ankolekar & Co. Actuaries

Other Long-term Benefits include:

- a. Privilege Leave
- b. Sick Leave
- c. Long term incentives
- d. Loyalty bonus
- e. Resettlement allowance

These are **not postemployment benefits** because these benefits could be availed while in employment.

ESOP/ ESPS are not 'Other Long-term Benefits' (separately covered under Ind AS 102/ ICAI GN 18)



Paragraph 63 read with Paragraph 155

Paragraph 155

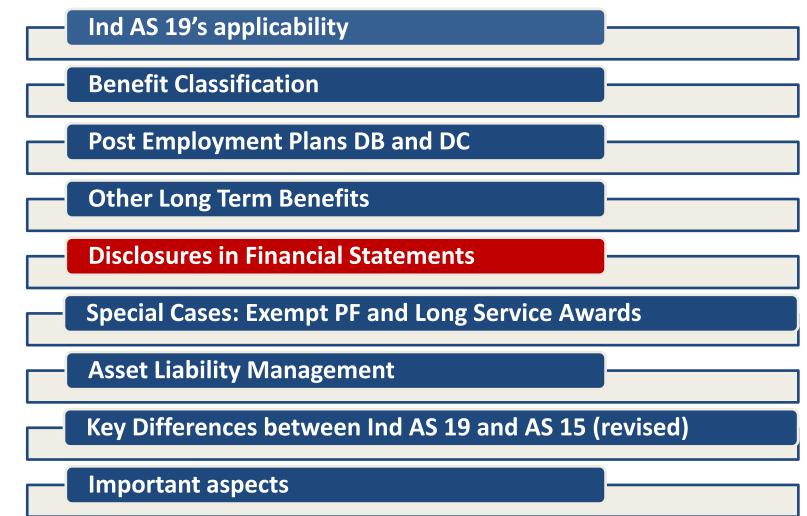
Other long term benefits need to be **actuarially valued using the Projected Unit Credit method** as shown in paragraph 67 63. An entity shall **recognize the net defined benefit liability (asset)** in the balance sheet

If the entity has a surplus in a defined benefit plan, the net defined benefit asset shall be recognized at the lower of:

- a. Surplus in the plan, and
- b. Asset ceiling calculated using the discount rate

No specific disclosure otherwise unless other Ind ASs require Nothing routed through OCI!







Ankolekar & Co. Actuaries

Disclosures under Ind AS 19 (Information)

Information on characteristics

- Nature of benefits
- Regulatory framework description
- Description of any other entity's responsibilities e.g. trustees



Information on Risks

- Describe the risks to which the plan is exposed to
- Unusual entity- or plan-specific risks e.g. investment concentration

Information on events

- Curtailments
- Amendments
- Settlements



Actuaries

Disclosures under Ind AS 19 (Explanation of Amounts)

Opening and Closing balances of Present Value of Defined Benefit Obligation Plan Assets Effect of asset ceiling Tabulation Detailed reconciliation of DBO and Plan Assets Asset classification Own transferrable instruments in assets, if any Information on actuarial assumptions In absolute terms

• Weighted averages or in narrow ranges (consolidation)



Ankolekar & Co. Actuaries

Disclosures under Ind AS 19 (Cash flows)

Sensitivity analyses

- For each significant actuarial assumption
- Methods used in preparing the sensitivity analyses
- Changes in method from previous period

Asset Liability matching

- Description of Asset Liability matching strategies
- Any tools used e.g. longevity swaps, annuities

Information on future cash flows

- Description of funding arrangements and funding policy
- Expected contribution in the next period
- Maturity profile information e.g. weighted average duration.



Disclosure for Short-term Provisions

As per MCA Notification SO 447(E) dated 28 Feb 2011, general instructions to prepare Balance Sheet state, short term provisions for Employee Benefits for Schedule VI need to be disclosed.

A)Unfunded Plans

 \rightarrow Expected Present Value (EPV) of 1 year DBO

A)Funded Plans

- \rightarrow Max [EPV of 1 year DBO *less* Fair Value of Trust Assets, 0]



Short-term Provision: where to disclose?

Ankolekar & Co. Actuaries

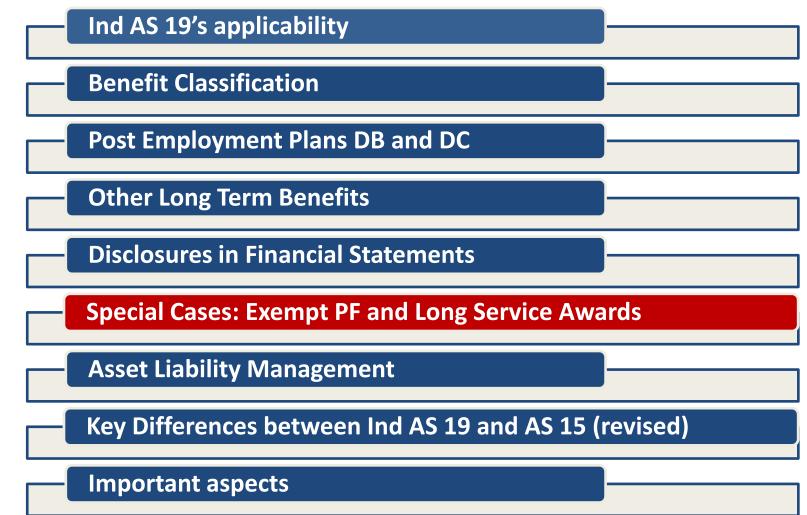
Reconciliation of Defined Benefit Obligation (DBO)

	2012
Present value of DBO at start of year	
Current service cost	
Interest cost	X
Actuarial loss/(gain)	
Present value of DBO at end of the period	
Of which, Short term DBO at end of the period	??

Net Liability/ (Asset) recognised in the Balance Sheet

		2012
Present Value of DBO		
Fair Value of Plan Assets		
Net Liability/ (Asset)		
Less: Unrecognised Past service cost	\mathbf{N}	
Liability/ (Asset) recognised in the Balance Sheet		
Of which, Short term Liability		??







Exempt Provident Funds – Defined Benefit Pension Plans

ICAI ASB has provided a guidance that an 'in-house' or 'exempt' provident fund should credit a yield at least equal to or better than that declared by the EPFO.

This creates an obligation on the part of the trustees and in turn the sponsoring employer to provide for the shortfall in yield i.e. between the yield to be declared and that achieved.

The present value of such guarantee is the liability to be provided by the sponsoring employer.



Exempt Provident Funds – Defined Benefit Pension Plans ... contd.

Guidance to actuaries follows the Institute of Actuaries of India's APS 29

The present value of such guarantee can be calculated on a deterministic or a stochastic basis.

So a need to understand emerging liabilities from trends in future interest rates vis-à-vis underlying assets of the provident fund.

The guarantee is the equivalent of an 'Interest Rate Floor' and can be calculated using Black's model.

Ind AS 19 is a 'fair value' standard, so assets to be measured on MTM basis.



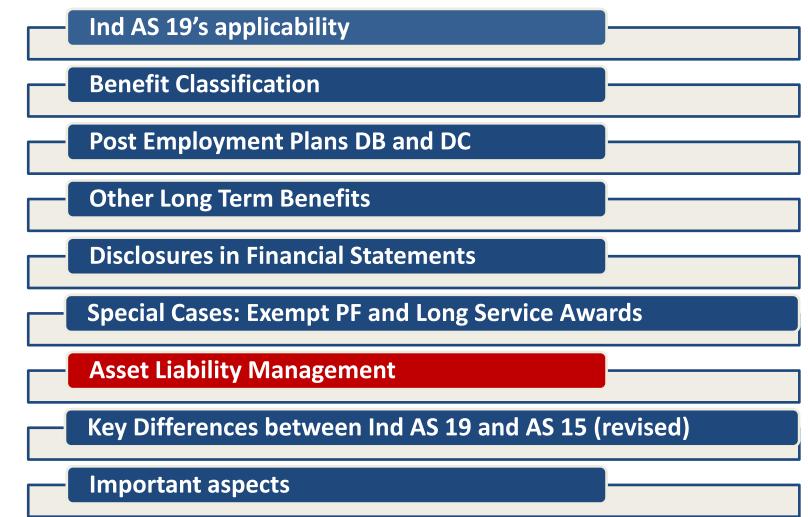
Long term Incentives

Cash based, not shares

Appropriate assumption e.g. escalation, attrition Deferred Compensation (part of Other Long Term EB)

Recognize P&L charge over the vesting period **Projected Unit Credit Method**







Funding DB Schemes

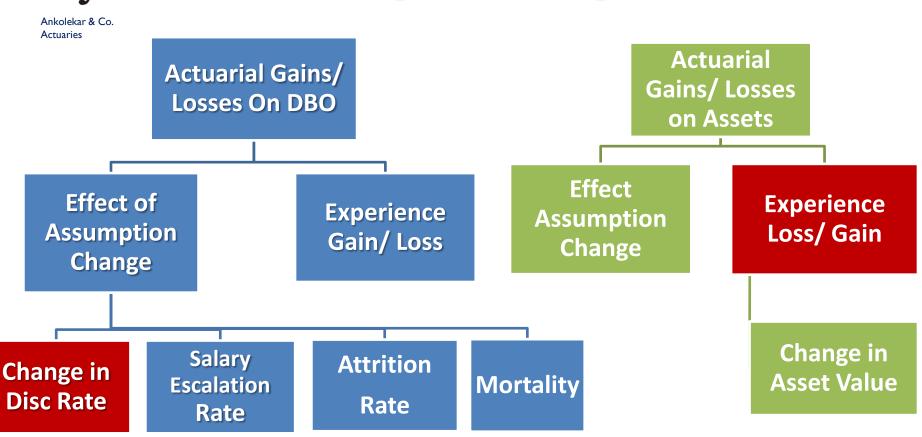
Actual return on plan assets and liability calculation BOTH impact employer expense

In principle, employers will seek to match emerging liabilities with asset performance

Liabilities are inherently REAL in nature. Example, salary escalation depends on inflation as well as economic growth.

Assets should hence be REAL in nature and match DURATION of liabilities

Analysing actuarial gains and losses



In a Fully Funded and Matched Scenario,

Actuarial I/g on DBO due to assumption = Actuarial g/l on FVA due to experience PS: Applies only to fair valued or UL debt assets



What does Ind AS 19 mean for P&L volatility and asset-liability management

Actuaries

Treatment is different	All actuarial gains/ losses directly enter the OCI
Accounting standpoint	Duration _{Assets} = Duration _{DBO} becomes less relevant (as volatility is parked in OCI) but the scheme can have losses/ gains from duration mismatch



Excess funding and Asset Ceiling

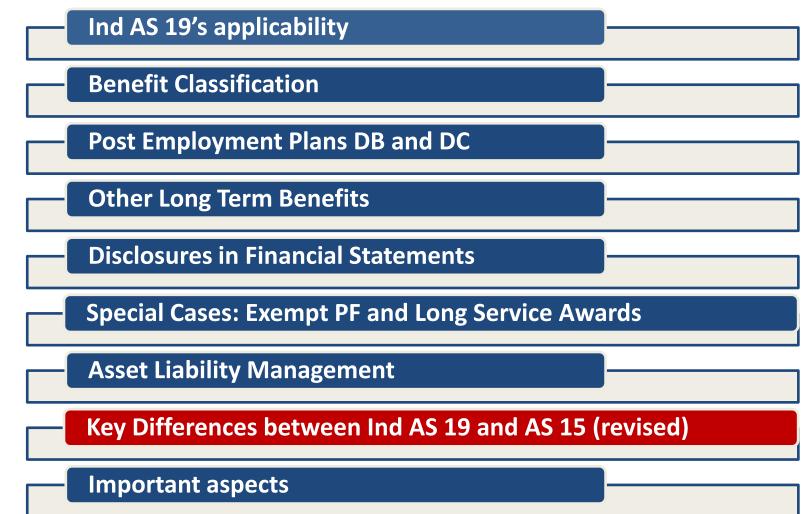
Under paragraph 57 (d) read with paragraph 64 of Ind AS 19 Surplus plans and those with minimum funding (min funding is not relevant in India) must measure the impact of asset ceiling.

Over-funding and pitfall?

Recognition of net assets to be restricted to 'Present Value of Economic Benefits from the assets'.

Example, if assets are not likely to be 'realized' for the plan (future cost will be outweighed by 'net assets')







Important Differences between AS 15 and Ind AS 19

AS 15 Ind AS 19 In P & I **Recognition of Actuarial** In Other Comprehensive Gains and Losses Income (OCI) (re-measurement) In P & I Asset returns in excess of In OCI discount rate **Past Service Cost** Recognized in P&L over Recognized **immediately** in P&I the period of vesting Disclosed separately for **Experience history** Disclosed separately for liabilities and assets for 5 liabilities and assets only for 2 years years Other re-measurements Effect of **change of asset** Effect of change of asset ceiling in P&L ceiling in OCI



Ankolekar & Co.

Important Differences between AS 15 and Ind AS 19...contd.

	AS 15	Ind AS 19
Calculation of Interest cost (IC) affecting employers expense. e.g DBO= 10000 FVA= 8000 Disc. Rate= 6 % EROA= 7.5 %	Interest cost is obtained by multiplying the DBO by the discount rate both as determined by the start of the annual reporting year IC & EROA are calculated separately to obtain employers expense. IC = 6% * 10000 = 600 EROA= 7.5% * 8000 = (600)_ Net expense/(income) = Nil	Net interest cost is calculated by multiplying the net defined benefit liability/ asset by the discount rate both as determined by the start of the annual reporting year Net defined benefit liability/ asset =8000-10000 Deficit=2000 Net interest cost = 6% * 2000 Net expense = 120 (here, employer expense increases)

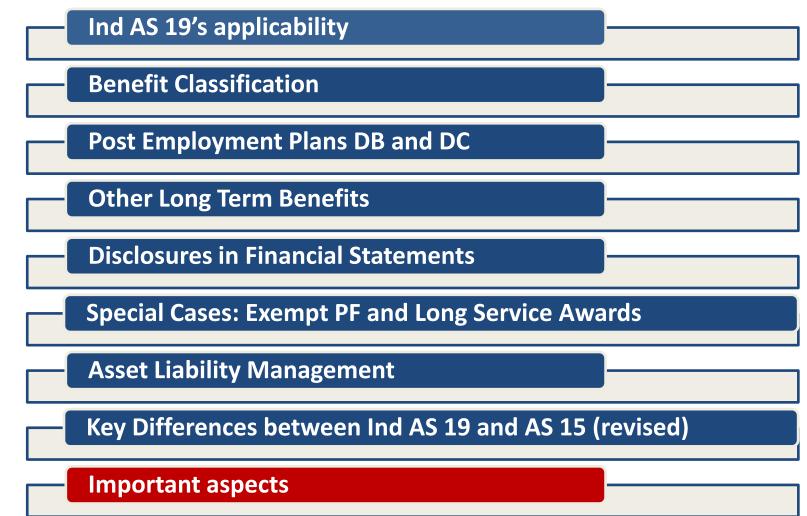


Ankolekar & Co. Actuaries

Important Differences between AS 15 and Ind-AS 19...contd.

Disclosures	AS15	Ind- AS 19
Asset Liability Matching Strategies	Not required	Description of such strategies, use of annuities and techniques like longevity swaps to manage risks.
Sensitivity Analysis of Significant Actuarial Assumptions	Not required , except for medical benefits	 i. Sensitivity analysis showing effect on DBO of each significant assumption. ii. A narrative description of the methods, assumptions and limitations of the above. iii. Changes from previous period in the methods/assumptions to calculate sensitivity.
Information of Future Cash Flows	Not required , except next year contribution	 i. Description of funding arrangements and policy that affect future contributions ii. Maturity profile of DBO e.g. weighted average duration







- In post employment DBO plans like gratuity and pension, liabilities arising for employee transfers in/ acquisition or being ceded due to employee transfers out/ divestiture would reflect in DBO reconciliation
- 2. Direct payments by employers and part settlements from the funds are 'benefits paid.' Provide right information to actuary.
- 3. Expenses of the fund (e.g. life insurance premiums, administration charges) are 'employer expense.'
- 4. Income of the fund apart from investment return (e.g. bonus units) are 'reduction of employer expense.'



Look Differently

- 5. Pension scheme valuation is DBO correctly defined and modeled?
 - Joint life annuities
 - Inflation assumption for index-linked annuities
 - Effect of a hedging strategy e.g. fixed to floating swap
- 6. Post employment medical benefits
 - Calculating the burn i.e. annual medical cost
 - Medical inflation, usually higher than pension indexation
 - Is enough experience and trend of the scheme considered



Assumptions OK?

- 7. How different is annuitant mortality assumption than in-service mortality assumption?
- Assumption setting, particularly for salary escalation and withdrawal need to understand how experience gains and losses feed into assumption setting
- 9. Large actuarial gains and losses, say beyond 10% of DBO
- 10. Do actuarial gains/ (losses) of assets set off actuarial (gains)/ losses of DBO. In that case, does duration of assets and liabilities match and hence an ALM even if restrictive is in place?



