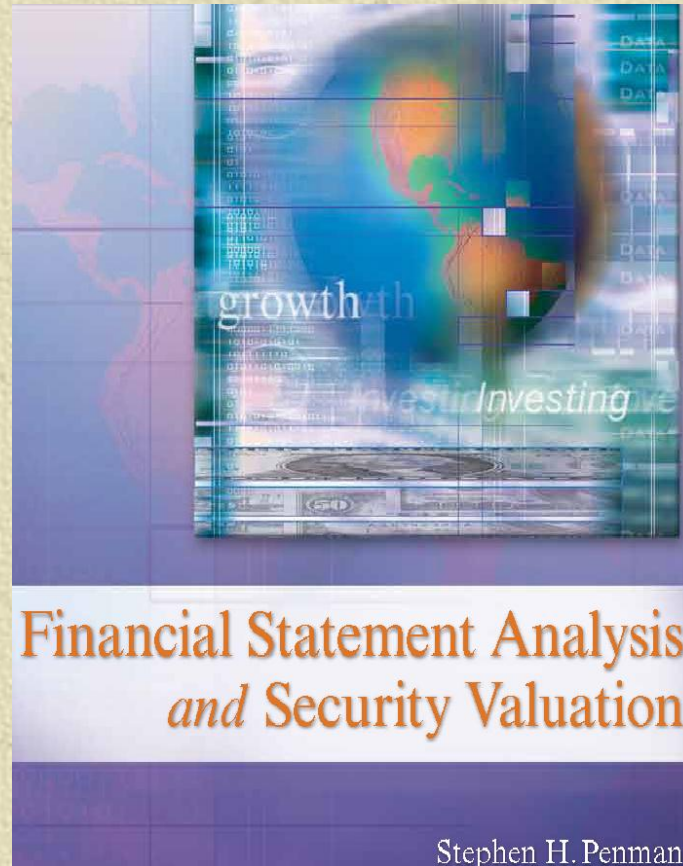


# Accounting Clinic VII



# Accounting Clinic VII

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# Accounting for Pensions

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*With contributions by*

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# Pension Benefits

- ✦ Periodic (usually monthly) payments made pursuant to the terms of the pension plan to a **person who has retired** from employment or to that person's beneficiary.
- ✦ Ordinarily, such benefits are periodic pension payments to **past employees** or their survivors, but they may also include benefits payable as a single lump sum and other types of benefits such as death benefits provided through a pension plan.

# Pension Benefits

- ✦ An employer's arrangement to provide pension benefits may take a variety of forms and may be financed in different ways.
- ✦ There are two types of pension plans:
  - ◆ defined contribution plan
  - ◆ defined benefits plan



# Defined Contribution Pension Plans

- ✦ A plan that provides an individual account for each participant, and specifies how contributions to the individual's account are to be determined instead of specifying the amount of benefits the individual is to receive.

# Defined Contribution Pension Plans

- ✦ Under a defined contribution pension plan, the benefits a participant will receive depend solely on the amount contributed to the participant's account, the returns earned on investments of those contributions, and forfeitures of other participants' benefits that may be allocated to such participant's account.



# Defined benefit Pension Plans

- ✦ A pension plan that defines an amount of pension benefit to be provided to the employee at retirement, usually as a function of one or more factors such as age, years of service, or compensation.
- ✦ Generally, the amount of benefit to be paid depends on a number of future events that are incorporated in the plan's benefit formula, often including how long the employee and any survivors live, how many years of service the employee renders, and the employee's compensation in the years immediately before retirement or termination.

# Defined Benefit Pension Plans

- ✦ In most cases, services are rendered over a number of years before an employee retires and begins collecting the pension.
- ✦ Any pension plan that is not a defined contribution pension plan is, for accounting purposes, a defined benefit pension plan.



# Benefit And Contribution Plans: A Comparison

|   | <b>Defined Benefits</b> | <b>Defined Contributions</b> |
|---|-------------------------|------------------------------|
| ✦ Plan defines                          | Benefits                | Contributions                |
| ✦ Plan beneficiary                      | Employer                | Employee                     |
| ✦ Investment risk                       | Employer                | Employee                     |
| ✦ Uncertainty of annual pension expense | None                    | High                         |

# Funded Pension Plans

- ✦ A pension plan is said to be funded when the employer sets funds aside for future pension benefits by making payments to a funding agency that is responsible for accumulating the assets of the pension fund and for making payment to the recipients as the benefits come due.



# Accounting for Defined Contribution Pension Plans

- ✦ The employer's responsibility is to make a contribution each year based on the formula established in the plan.
- ✦ The employer's annual cash cost is the amount of annual contribution to the pension trust.
- ✦ The need for a net pension asset or liability arises only if the value of the pension trust differs from the estimated liability to pay pensions.

# Accounting for Defined Benefit Pension Plans

- ✦ The accounting for a defined benefit plan has to deal with two main problems:
  1. Estimates or assumptions must be made concerning the future events that will determine the amount and timing of the benefit payments.
  2. An approach to attributing the cost of pension benefits to individual years of service must be selected.
- ✦ Remember: The plan is an accounting entity separate from the employer



# Basic questions

- ✦ What is employer's liability/asset (how should this be reported on the balance sheet?)
- ✦ What is the current year's expense associated with the plan?

# Measuring the Pension Liability

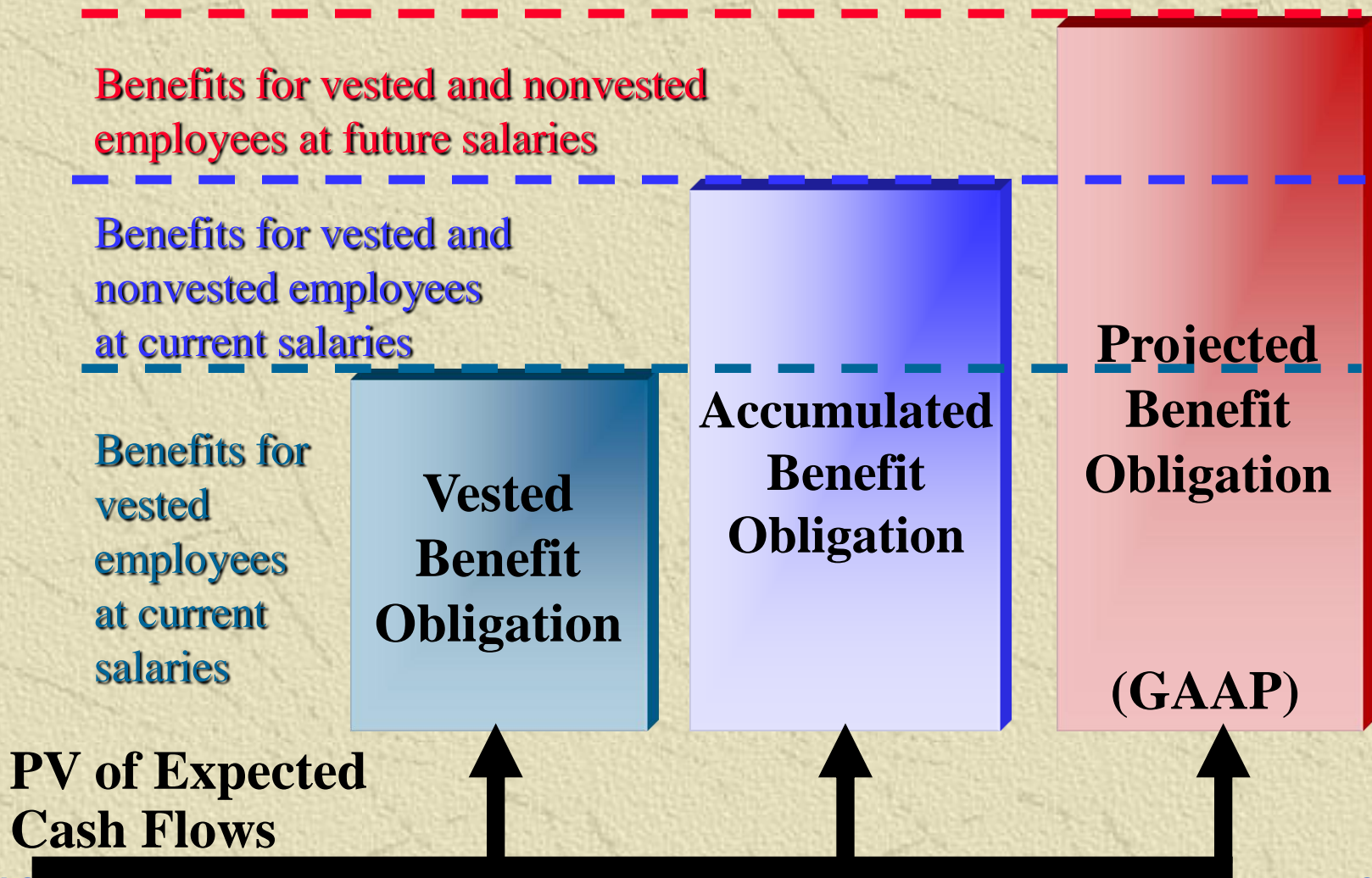
- ✦ An employer's pension obligation is the deferred compensation obligation it has to its employees under the terms of the pension plan.
- ✦ There are three ways to measure this liability.
  - ◆ The ***vested benefits pension obligation (VBO)*** - is calculated based on the current salary levels and includes only vested benefits.



# Measuring the Pension Liability

- ◆ The ***accumulated benefit obligation (ABO)*** - is calculated based on all years of service performed by employees under the plan - both vested and nonvested - using current salary levels.
- ◆ the ***projected benefit obligation (PBO)*** - is calculated based on both vested and nonvested service using future salaries and not current ones. Note that measuring the PBO requires many actuarial assumptions (mortality rates, employee turnover, interest rate, early retirement frequencies, future salaries, etc.).

# Measuring the Pension Liability





# Measuring the Pension Liability

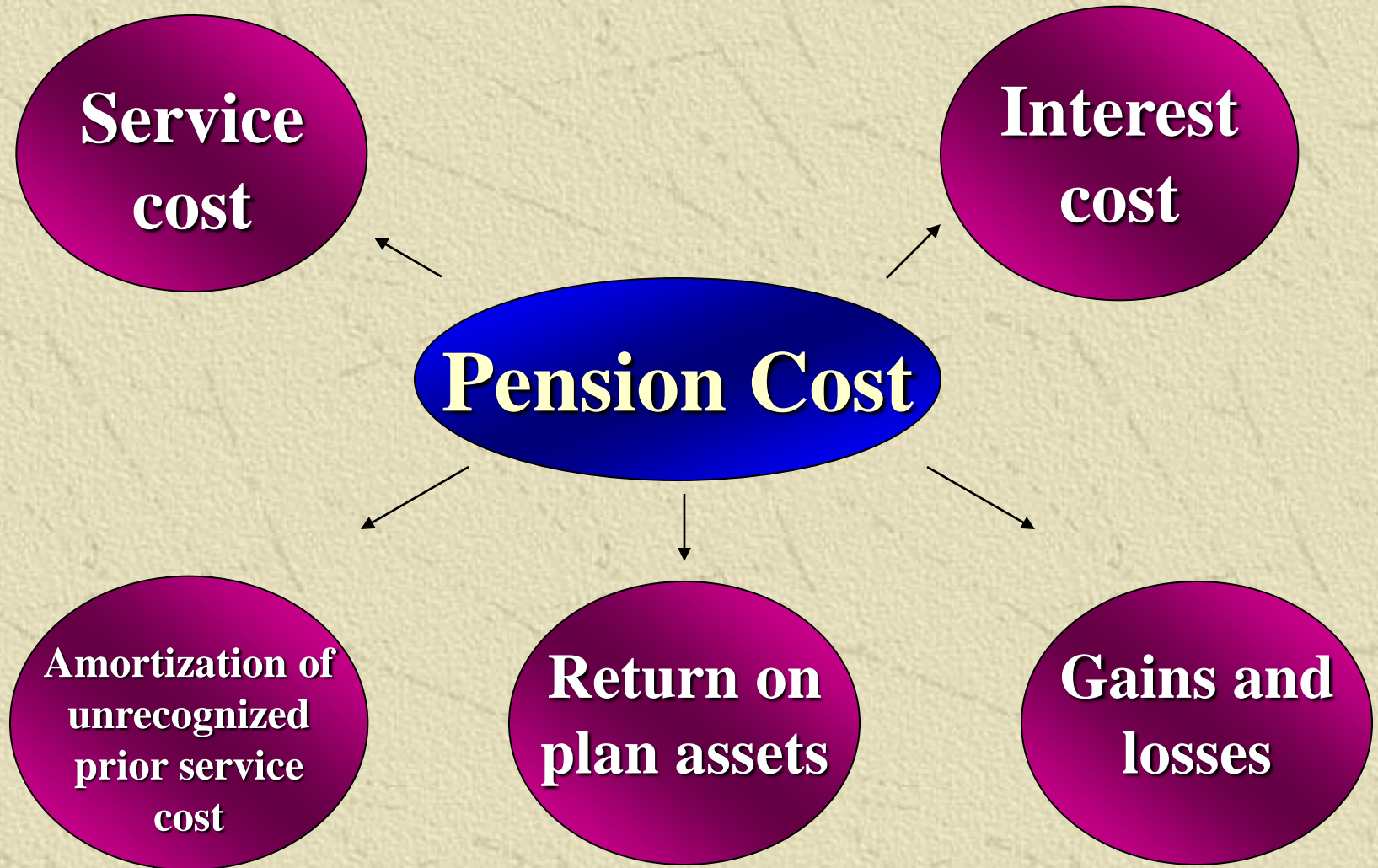
- ✦ Prior to issuance of *FASB Statement No. 87*, accounting for pension plans followed a ***noncapitalization approach***.
- ✦ Under this approach, the balance sheet reported an asset or liability for the pension plan arrangement only if the amount actually funded during the year by the employer was different from the amount reported by the employer as pension expense for the year.

# Measuring the Pension Liability

✦ *FASB Statement No. 87* adopted an approach that leans toward a **capitalization approach**. Under a capitalization approach, the employer has a liability for pension benefits that it has promised to pay for employee services already performed. As pension expense is incurred--as the employees work--the employer's liability increases. The pension liability is reduced through the payment of benefits to retired employees.



# Components of the Pension Cost



# Service cost component

- ✦ The actuarial present value of benefits attributed by the pension benefit formula to services rendered by employees during that period. The service cost component is a portion of the projected benefit obligation and is unaffected by the funded status of the plan.



# Interest cost component

- ✦ The increase in the projected benefit obligation due to passage of time.


# Return on plan assets component

- ✦ The difference between fair value of plan assets at the end of the period and the fair value at the beginning of the period, adjusted for contributions and payments of benefits during the period.
- ✦ The gain or loss is split into the *expected return* (always positive, based on expected long-run rates of return) and the *unexpected return*.
- ✦ The expected return is reported as part of pension expense (as a reduction to pension expense) in the income statement; the unexpected return is reported in Other Comprehensive Income.




# Prior service cost

- ✦ Plan amendments (including initiation of a plan) often include provisions that grant increased benefits based on services rendered in prior periods.
- ✦ The cost of retroactive benefits (including benefits that are granted to retirees) is the increase in the projected benefit obligation at the date of the amendment.
- ✦ Because plan amendments are granted with the expectation that the employer will realize economic benefits in future periods, SFAS 87 does not require the cost of providing such retroactive benefits (that is, prior service cost) to be included in net periodic pension cost entirely in the year of the amendment but provides for recognition during the future service periods of those employees active at the date of the amendment who are expected to receive benefits under the plan.

- 
- ✦ Usually that prior service cost shall be amortized by assigning an equal amount to each future period of service of each employee active at the date of the amendment who is expected to receive benefits under the plan. If all or almost all of a plan's participants are inactive, the cost of retroactive plan amendments affecting benefits of inactive participants shall be amortized based on the remaining life expectancy of those participants instead of based on the remaining service period.
  - ✦ Consistent use of an alternative amortization approach that more rapidly reduces the unrecognized cost of retroactive amendments is acceptable. For example, a straight-line amortization of the cost over the average remaining service period of employees expected to receive benefits under the plan is acceptable. The alternative method used shall be disclosed.



- 
- ✦ Prior service cost is booked as a charge to Other Comprehensive Income when recognized and amortized to pension expense in the income statement from there.

# Gains and losses

- ✦ Changes in the amount of either the projected benefit obligation or plan assets resulting from experience being different from that assumed, and from changes in assumptions.
- ✦ SFAS 87 does not distinguish between sources of gains and losses. Gains and losses include amounts that have been realized, for example by sale of a security, as well as amounts that are unrealized.



# Projected Benefit Obligation (PBO) Calculation

- Beginning balance
- + Current service cost
- + Prior service cost
- + Interest on obligation
- Benefit payments to retirees
- + Actuarial gains/losses
- Ending balance


# Pension Assets Calculation

- Beginning balance
- + Actual return on plan assets
- + Funding payments
- Benefit payments to retirees
- Ending balance



# Example I

- ✦ Kramer Inc. sponsors a defined benefit pension plan. The company provides you with the following information:
  - ◆ On December 31, 2004 plan assets were 270,000 and the projected benefit obligation was 270,000.
  - ◆ During 2005, service cost was \$30,000. Actual and expected return on plan assets were \$25,000 and the settlement rate was 10%.
  - ◆ Benefits paid were 21,000 and contributions were 18,000.

- 
- ✦ Calculate the pension expense for 2005 and provide the journal entry to record it.
  - ✦ What is the balance of the projected benefit obligation and the plan assets at the end of the year? (these accounts are reported in *memo records*)



# Pension Expense for 2005

|   |                 |
|---|-----------------|
| Service cost                                | \$30,000        |
| Interest cost                               | 27,000          |
| Actual (and expected) return on plan assets | <u>(25,000)</u> |
| Pension expense for 2005                    | <u>\$32,000</u> |

The journal entry is:

|                      |        |        |
|----------------------|--------|--------|
| Pension Expense      | 32,000 |        |
| Cash                 |        | 18,000 |
| Accrued pension cost |        | 14,000 |

(To record the pension expense)

# Projected Benefit Obligation (PBO)

|                        |                 |
|------------------------|-----------------|
| PBO, December 31, 2004 | \$270,000       |
| Service cost           | 30,000          |
| Interest cost          | 27,000          |
| Benefits               | <u>(21,000)</u> |
| PBO, December 31, 2005 | <u>306,000</u>  |



# Plan Assets


|                           |                 |
|---------------------------|-----------------|
| Fair value of plan assets |                 |
| December 31, 2004         | \$270,000       |
| Add: actual return        | 25,000          |
| contributions             | 18,000          |
| Subtract: benefits        | <u>(21,000)</u> |
| Fair value of plan assets | <u>292,000</u>  |
| December 31, 2005         |                 |

# Example II

✦ Trey Inc. provides you with the following information regarding its defined benefit pension plan:

|   |       |
|---|-------|
| Projected benefit obligation, December 31, 2004 | 2,795 |
| Plan assets (fair value), December 31, 2004     | 1,620 |
| Plan assets (fair value), December 31, 2005     | 2,850 |
| Expected rate of return on plan assets          | 12%   |
| Discount rate for pension liability             | 12%   |
| Service cost for the year 2005                  | 420   |
| Contributions for the year 2005                 | 750   |
| Benefits paid in 2005                           | 250   |



- 
- ✦ The amount of unrecognized prior service cost was \$1,175 at the beginning of 2005. The average remaining service life per employee is 12 years.
  - ✦ The amount of unrecognized net gain or loss amortization was zero

Required:

- ✦ Compute pension expense for 2005.

# Pension Expense for 2005

|   |              |
|---|--------------|
| Service cost                                  | \$420        |
| Interest cost ( $\$2,795 \times 12\%$ )       | 335          |
| Expected return on plan assets (Schedule I)   | (194)        |
| Amortization of prior service cost (1,175/12) | <u>98</u>    |
| Pension expense for 2005                      | <u>\$659</u> |

This pension expense is recorded in the income statement. In addition, the difference between the actual return on plan assets (730) and the expected return (194) is booked to Other Comprehensive Income.



# Schedule I - Actual Return on the Plan Assets in 2005

|  |              |                |
|--|--------------|----------------|
| Fair value of plan assets,<br>December 31, 2005        |              | \$2,850        |
| Deduct: Fair value of plan assets<br>December 31, 2004 |              | <u>(1,620)</u> |
| Increase in fair value of plan assets                  |              | 1,230          |
| Deduct: Contributions                                  | \$750        |                |
| Less benefits paid                                     | <u>(250)</u> | <u>(500)</u>   |
| Actual return on plan assets in 2005                   |              | <u>\$730</u>   |

# Schedule II – Pension Assets Gains and Losses

|   |              |              |
|---|--------------|--------------|
| Actual fair value of plan assets<br>December 31, 2005                 |              | \$2,850      |
| Expected fair value<br>fair value of plan assets<br>December 31, 2004 | 1,620        |              |
| Add expected return<br>(\$1,620 x 12%)                                | 194          |              |
| Add contribution  | 750          |              |
| Less benefits paid  | <u>(250)</u> | <u>2,314</u> |
| Unexpected return on plan<br>assets                                   |              | <u>536</u>   |



# THE FASB-IASB Pension Project

- ✦ The FASB and IASB are currently engaged in overhauling pension accounting. Watch for changes
- ✦ Phase A is completed and resulted in FASB Statement No. 158 that is incorporated in the material here.
- ✦ Phase B is more comprehensive, dealing with all aspects (including the issues addressed in Chapter 13)

# FASB Statement 158

- ✦ Firms are required to report their pension funding position in the balance sheet. This is the fair value of pension assets (rather than the Statement 87 value) minus the liability (as measured under Statement 87)
- ✦ The income statement is not affected (income statement effects will be considered in Phase B)
- ✦ The gain or loss from revaluing pension assets in the balance sheet are booked to equity
- ✦ Prior service cost is recorded in equity (and amortized from there)