

CHAPTER 19: PENSIONS AND OTHER EMPLOYEE FUTURE BENEFITS

Overview

The focus of the chapter is on the employer's accounting for a variety of pension-related transaction, particularly for *defined benefit plans*. The corporation's general objective is to immediately measure and recognize pension expense during the period, wherein employees earn benefits. The following points are worth emphasizing:

- The terms "employer" and "corporation" are used interchangeably in these notes.
- The focus of the chapter is not on pension accounting; that is, attention is not given to the accounting for the assets held in trust (i.e., pension fund).
- The time horizon of pension accounting is the employee's entire life.

Pensions: Preliminary Points

It is worth emphasizing a few points before analyzing defined benefit plans and defined contribution plans.

First, defined benefit plans and defined contribution plans offer *vested benefits*. Vested benefits are retained by employees even after they formally terminate employment with the corporation. Generally benefits vest after the employee works for the corporation for a specific period of time. Vested benefits are similar to accumulating benefits (see Chapter 13). For the most part, the value of vested benefits increases as a function of employee tenure. But other factors impact the value of vested benefits, such the employee's highest projected wage-level.

Second there are both *contributory* and *non-contributory* pension plans in practice. Both defined benefit plans and defined contribution plans can be contributory or non-contributory. Both the employer and the employee make contributions to the pension plan under a contributory plan. Only the employer makes contributions to the pension plan under a non-contributory plan. All else being equal, the employer assumes more risk in relation to a non-contributory plan. (This is particularly true in relation to a defined benefit plan.)

One important final note: The pension fund is an off-balance sheet item. The corporation does not account for the pension fund in the financial statements. But the corporation still accounts for a variety of pension-related transactions that bear on the fund. This chapter analyzes the accounting for these transactions, particularly in the context of defined benefit plans.

Pension Plans

There are two primary types of pension plans, and they are defined contribution plans and defined benefit plans.

Defined Contributions Plans

A *defined contribution plan* specifies how much the corporation contributes to the plan during each period. Alternatively this type of plan sets out some type of formula, and the formula establishes the value of the corporation's regular contributions to the pension plan. A defined contribution plan does not specify the value of the benefits employees will eventually receive from the fund. To put it differently, a defined contribution plan defines the value of the employer's regular contributions to the pension fund but it does not define the value of the benefits disbursed to retirees in the future.

These points apply to defined contributions plans:

- Employer contributions can take a variety of forms, like a fixed sum or a percentage of the employee's salary.
- The employer assumes no risk. As an example, if the value of the plan assets declines, then the employer loses nothing. The employee, on the other hand, receives fewer benefits upon retirement.
- The corporation's accounting for a defined contribution plan is relatively straight-forward because the corporation makes fixed contributions to the fund.
- *Past service costs* impact pension expense and the related obligation whenever a defined contribution plan is established or subsequently amended. Past service costs are included as a component of pension expense in the current year even though these costs relate to benefits earned by employees in previous years. An individual, for instance, might have previously earned benefits when she/he worked for one of the

corporation's subsidiaries. Later the individual transfers from the subsidiary to the parent company. *Ceteris paribus*, the parent corporation is obliged to make a one-time contribution to the pension fund in a reflection of these prior-period benefits earned by the "new employee". This situation sees the employer make a one-time contribution to the fund, and this contribution goes above and beyond the corporation's usual payment to the fund. As a result, pension expense – in this specific year – exceeds pension expense in an ordinary year.

Defined Benefit Plans

A second type of pension plan is known as a *defined benefit plan* and the chapter focuses primarily on the corporation's accounting for a variety of pension-related transactions concerning this type of pension plan. This type of benefit plan specifies either the amount of benefits that will be paid to retirees or the method for disbursing benefits from the fund to retirees. To sum up, retirement benefits are defined but the value of the employer's contributions to the pension fund are undefined. That is, contributions fluctuate in a reflection of the performance of the fund. By extension, the corporation assumes more risk relative to the risk it would assume in relation to a defined contribution plan.

Recall a defined benefit plan is an off-balance sheet item. The corporation, however, still maintains a memo record of the pension plan and this memo record comprises 2 accounts: (1) *Accrued Benefit Obligation* (hereafter ABO) (ASPE) or *Defined Benefit Obligation* (hereafter DBO) (IFRS): Present value of future benefits paid to retirees; (2) *Plan Assets*: Present value of the assets held in trust. While the pension fund is an off-balance sheet item, there is one case where it impacts the corporation's financial statements.¹ The corporation recognizes a pension-related asset/liability on the balance sheet whenever the value of the ABO/DBO \neq the value of plan assets. Any difference comes to bear on the corporation's SFP in this manner: If the value of the plan assets $>$ the value of the DBO/ABO \rightarrow a *net benefit asset* is recognized on the corporation's SFP; if the value of the plan assets $<$ the value of the DBO/ABO \rightarrow a *net benefit liability* is recognized on the corporation's SFP.

Accounting: Immediate Recognition Approach

One Important Note: You are only responsible for applying the *immediate recognition approach* (ASPE) and the *modified recognition approach* (IFRS) for the purposes of this course. The two approaches are virtually identical apart from a few terminology differences along with differences seen in the treatment of a handful of transactions. Going forward: The immediate recognition approach will be used to describe both methods throughout the balance of these notes. The approach provides a specific way for a corporation to account for a variety of transactions that bear on a defined benefit plan, whereby *pension expense* is made up of all items affecting the funded status during a specific period. Some of these items include *current service cost*, *interest cost*, *actual return on plan assets*², *past service costs*, and *actuarial gains and losses*. Greater consideration is given to these items below.

Worksheet Approach

You will apply the immediate recognition approach by filling out a worksheet. The worksheet is not an accounting method. It is not found in the corporation's financial statements. It is not audited. The worksheet is simply a tool used to apply the immediate recognition approach. You can think of the worksheet as a tool like Microsoft excel for instance. There are a couple of benefits gleaned from preparing the worksheet. One it shortens the time you spend preparing pension-related journal entries. Two you acquire an intuitive understanding of the fundamental concepts underpinning pension accounting as you fill out the worksheet.

The Worksheet at a Glance

Figures 2 and 3 illustrate the IFRS and ASPE worksheets, respectively. As noted, there are different terms used in IFRS and ASPE, and these differences are highlighted in Figure 1.

¹ Note: This is not the case for a defined contribution plan.

² But see the forthcoming discussion on the differences between the immediate recognition and modified immediate recognition approaches.

Figure 1: Terminology Differences

ASPE	IFRS
Accrued Benefit Liability/Asset	Net Defined Benefit Liability/Asset
Accrued Benefit Obligation	Deferred Benefit Obligation

As you can see from looking at Figures 2 and 3, the IFRS worksheet contains one additional General Ledger Column entitled “Re-measurement Gain – OCI.”

Figure 2: Worksheet Approach (IFRS)

	General Journal Entries - IFRS				Memo Record	
	Annual Pension Expense	Cash	Remeasurement Gain - OCI	Net Defined Benefit Liability/Asset	Deferred Benefit Obligation	Plan Assets
Items						
Expense Entry						
Contribution Entry						
Year End Balance						

Figure 3: Worksheet Approach (ASPE)

	General Journal Entries - ASPE			Memo Record	
	Annual Pension Expense	Cash	Accrued Benefit Liability/Asset	Accrued Benefit Obligation	Plan Assets
Items					
Expense Entry					
Contribution Entry					
Year End Balance					

Apart from the above differences, the worksheets are virtually identical. You will see that they are divided into 2 sets of columns: (1) “General Journal Entries;” and (2) “Memo Record.” You will also see a column labelled “Items.” Items are descriptions (or labels) used to describe specific types of transactions/events that impact the worksheet. The values of specific items are recorded in the general journal columns and/or the memo record columns. The following analyses provides details on how to complete the worksheets and then how to prepare the related journal entries.

Step #1: Enter the Requisite Opening Balances

Enter the opening balance of the ABO (ASPE) or DBO (IFRS) columns. They are equal to the present value of the vested and non-vested benefits earned by employees as of the balance sheet date. The benefits are measured using employees’ future salary-levels. These are the benefits employees are entitled to receive upon retirement. These amounts may be given to you in a problem or you will be able to determine their value algebraically.

Then you should enter the opening balance of plan assets. Plan assets are measured at fair value and they are held in trust. Plan assets are managed by a separate legal entity, and these assets comprise investments in debt, equity, real-estate, cash and cash equivalents, and so on. The trust is responsible for disbursing the assets to retirees. The

corporation is not responsible for this task. You will be given the value of plan assets or there will be sufficient data provided to you in order to solve for the value of the plan assets algebraically.

Finally enter the opening balance of the Accrued Benefit Liability/Asset (hereafter ABLA) (ASPE) or the Net Defined Benefit Liability/Asset (hereafter NDBLA) (IFRS). These values are calculated like this:

- $ABLA = \text{Plan Assets} - ABO$
- $NDBLA = \text{Plan Assets} - DBO$

You will be given the value of the ABLA/NDBLA or there will be sufficient data provided to you in order to determine its value algebraically.

Very Important: The only time a defined benefit pension fund impacts the corporation's balance sheet is when there is a difference between the value of the plan asset and the ABO/DBO. The value of ABLA/NDBLA is zero if $\text{plan assets} = ABO/DBO$.

Step #2: Record Pension Transactions

The corporation accounts for a number of pension-related items over the course of the year. Each item is labelled in the "Item" Column in the worksheet and then corresponding debit(s) and credit(s) are entered into the appropriate general journal column(s) and/or memo record column(s). These are the principal pension related transactions you will enter into the worksheet:

Past Service Costs: The concept of past service costs is discussed above. These costs are recognized immediately by the employer even though the benefits are earned by employees in prior years. Here's how to handle them on the worksheet:

- Enter "Past Service Cost" in the "Item" Column; Debit the G/L Column "Annual Pension Expense" for the value of these costs; Credit the M/R Column "ABO" (ASPE) - or "DBO" (IFRS) - for the corresponding amount.

Contributions: The corporation makes regular contributions to the pension fund. The contributions are made to ensure sufficient investments are in place to pay retiree benefits. Here's how to handle contributions on the worksheet:

- Enter "Contribution" in the "Item" Column; Credit the G/L Column "Cash" for the value of the contribution; Debit the M/R Column "Plan Assets" for the corresponding amount.

Service Cost (Current): This cost is the present value of the future pension benefits earned by the employees in the current period. The employee earns these benefits by providing services to the employer now. Here's how to handle current service costs on the worksheet:

- Enter "Service Cost" in the "Item Column;" Debit the G/L Column "Annual Pension Expense" for the value of the benefits earned by employees this year; Credit the M/R Column "ABO" (ASPE) - or the M/R Column "DBO" (IFRS) - for the corresponding amount.

Interest Cost: It is necessary to adjust the value of the pension obligation in a reflection of the passage of time.³ Both IFRS and ASPE require application of the current market rate to increase the value of the future pension obligation. Here's how to handle interest cost on the worksheet:

- Enter "Interest Cost" in the "Item" Column; Debit the G/L Column "Annual Pension Expense" for the value of the cost; Credit the M/R Column "ABO" (ASPE) - or the M/R column "DBO" (IFRS) - for the corresponding amount.
- One note here: You will often be required to calculate the corporation's service cost, whereby you multiply the opening balance of the DBO/ABO column by the current market rate. One important note: In the event there are past service costs, don't forget to add these costs to the opening balance of the ABO/DBO. Multiply the total balance by the current market rate.

³ This cost should remind you of the accounting for an Asset Retirement Obligation (ARO), whereby you update the value of the ARO each year as the settlement date approaches. Similarly, interest is accrued on the ABO/DBO each year like it is on any discounted debt.

Benefits Paid: This is a transaction that sees the Trustee distribute benefits from the fund to retirees. Please note: This transaction has no bearing on the corporation's pension expense. The corporation records pension expense in the period, wherein employees earn benefits, and not in the period, wherein benefits are paid out of the trust to retirees. Here's how to handle this transaction on the worksheet:

- Enter "Benefits Paid" in the "Item" Column; Credit the M/R column "Plan Assets" for an amount equal to the benefits distributed to former employees; Debit the M/R Column "ABO" (ASPE) - or "DBO" (IFRS) - for the corresponding amount.

Return on Plan Assets: This transaction is associated with a return (or a loss generated) on the plan assets held in trust. The return relates to things like dividends, interest, capital gains/losses on the sale of assets (including real-estate), and so forth. The return is reduced by fees charged by the Trustee to administer the fund. Please remember that plan assets are measured at fair value. Consequently both *realized* and *unrealized gains and losses* factor into return on plan assets. One important note here: There is a difference between the ASPE/IFRS treatment of any discrepancy between the anticipated and actual return on plan assets. Here's how to handle this discrepancy on the two worksheets:

- **ASPE:** No distinction is made between the actual and anticipated return on plan assets on the worksheet. Enter "Actual Return" in the "Items" Column; Credit the "Annual Pension Expense" G/L Column for an amount equal to the entire return generated on the plan assets; Debit the "Plan Assets" M/R Column for the corresponding amount.⁴
- **IFRS:** A distinction is made between the actual and anticipated return on plan assets. Enter "Expected Return" in the "Items" Column; Credit the "Annual Pension Expense" G/L Column for an amount equal to the anticipated positive return on the plan assets; Debit the "Plan Assets" M/R Column for the corresponding amount⁵; Enter "Actual return" in the "Items" Column; Credit the "OCI" G/L Column for an amount equal to the difference between the actual and anticipated return on assets⁶; Debit the "Plan Assets" M/R Column for the corresponding amount.

Actuarial Gains/Losses: Any difference between the actuary's original estimates and actual outcomes seen are recognized on the worksheet. Actuaries are unable to predict the future. They are unable, for instance, to determine the amount of benefits that will be disbursed to retirees. Bearing this in mind, actuarial estimates change over time. And their estimates are not always consistent with what eventually happens to a pension plan. One important note here: There is a difference between the ASPE/IFRS treatment of actuarial gains and losses. Here's how to handle this discrepancy on the two worksheets:

- **ASPE:** Enter "Actuarial Loss" in the "Items" Column; Debit the "Annual Pension Expense" G/L Column for the amount of the loss; Credit the "ABO" M/R Column for the corresponding amount.⁷
- **IFRS:** The same entry described directly above is made on the IFRS-worksheet but: Debit the "OCI" G/L Column for the amount of the loss; Credit the "DBO" M/R Column for the corresponding amount.⁸

Step #3: Record 2 Journal Entries Based on the Data from the Worksheet

These two journal entries that are recorded once the worksheet is completed. (Please note: Both the IFRS and ASPE entries are provided.)

(1) Annual Pension Expense Journal Entry (ASPE)

Pension Expense	xxx	
Accrued Benefit Liability/Asset		xxx

Here's how to calculate the figures used in the above entry:

Pension Expense = Sum total of the "Annual Pension Expense" G/L Column.

Accrued Benefit Liability/Asset = Plug → Same amount as the value of pension expense.

⁴ Please note: the debit and credit is reversed in the event there is a loss on plan assets.

⁵ Please note: OCI would be debited if the actual return is less than the expected return on plan assets.

⁶ This entry is made in the event the return exceeds expectations. OCI is debited when the return is less than anticipated.

⁷ An actuarial gain would see the debit and credit reversed.

⁸ An actuarial gain would see the debit and credit reversed.

(1) Annual Pension Expense Journal Entry (IFRS)

Pension Expense	xxx	
OCI	xxx	
Net Defined Benefit Liability/Asset		xxx

Here's how to calculate the figures used in the above entry:

Pension Expense = Sum total of the "Annual Pension Expense" G/L Column.

OCI = Sum total of the "OCI" G/L Column.

Net Defined Benefit Liability/Asset = Plug → Pension Expense + OCI.

(2) Contribution Entry (ASPE)

Accrued Benefit Liability Asset	xxx	
Cash		xxx

Here's how to calculate the figures used in the above entry:

Cash = Sum total of the "Cash" G/L Column.

Accrued Benefit Liability/Asset = Plug → Same amount as cash.

(2) Contribution Entry (IFRS)

Net Defined Benefit Liability/Asset	xxx	
Cash		xxx

Here's how to calculate the figures used in the above entry:

Cash = Sum total of the "Cash" G/L Column.

Net Defined Benefit Liability/Asset = Plug → Same amount as cash.