

Learning Module 2

Employee Compensation: Post-Employment and Share-Based



LOS: Contrast types of employee compensation.

LOS: Explain how share-based compensation affects the financial statements.

LOS: Explain how to forecast share-based compensation expense and shares outstanding in a financial statement model and their use in valuation.

LOS: Explain how post-employment benefits affect the financial statements.

LOS: Explain financial modeling and valuation considerations for post-employment benefits.

Types of Employee Compensation



LOS: Contrast types of employee compensation.

Companies can offer several types of benefits to their employees (eg, pension plans, health care plans, medical insurance). The main differences between forms of compensation relate to when the benefits are paid and how they are paid. Exhibit 1 provides examples of compensation types:

Exhibit 1 Forms of compensation

Type of compensation	Examples
Short-term	Salaries, bonuses, retirement contributions, health insurance
Long-term	Long-term paid leave, long-term disability
Termination	Severance pay, career counseling
Share-based	Restricted stock, stock options
Post-employment	Pensions, life & health insurance

If a company reports under IFRS, all the compensation forms listed in Exhibit 1 are expensed at fair value when the compensation vests in the employee. Vesting is defined as the employee's having an unconditional right to receive the compensation, even if actual receipt will not occur until some time in the future.

For cash (ie, short-term) compensation, the:

- income statement shows an expense for the amount of compensation.
- balance sheet shows a liability for deferred compensation (until cash payment).
- statement of cash flows shows an entry for cash from operations (CFO) for the period when the compensation is paid.

Share-Based Compensation

As indicated in Exhibit 1, employees may have a portion of their compensation paid in shares of the company's common stock. Such compensation is typically offered to align the employees' interests with those of highly compensated management and non-employee shareholders or to improve employee retention. It may prove ineffective or even backfire if the recipients have limited opportunities to affect share price or cannot do so without modifying their risks. However, an advantage of share-based compensation is that no immediate cash outlay is required; compensation is provided as shares of stock or options/warrants on shares.

Exhibit 2 Advantages and disadvantages of share-based compensation

Advantages	Disadvantages
<ul style="list-style-type: none"> • Employee motivation with the possibility of higher earnings 	<ul style="list-style-type: none"> • Limited influence over firm value or stock price may weaken motivation
<ul style="list-style-type: none"> • Incentive to align interests of shareholders and employees 	<ul style="list-style-type: none"> • Stock ownership may increase risk aversion, leading to less profitable projects • Asymmetrical payout of options may increase risk appetite, leading to riskier projects
<ul style="list-style-type: none"> • Potentially no cash disbursements required 	<ul style="list-style-type: none"> • Equity-settled compensation can cause dilution of shares

Financial Reporting for Share-Based Compensation



LOS: Explain how share-based compensation affects the financial statements.

Under IFRS, compensation paid in shares is provided over a timeline of events: shares are granted, followed by a period of vesting that ends on a settlement date. The fair value of the shares at the time of the grant is apportioned over the vesting period, impacting both the income statement and balance sheet each year of that period. This is the case even if the employee is not vested in any of the shares until the vesting period has been completed.

- The income statement will report compensation expense annually during the vesting period. The amount reported each year is the prorated amount of the shares' initial fair value.
- On the balance sheet, the amount of compensation expense is reported in a share-based compensation reserve account under equity. At the end of the vesting period, the entire fair value is transferred from the reserve account into the common stock/paid-in capital account.

The fair value of the shares is measured only on the date of grant. It is not adjusted regardless of changes to the share price during the vesting period. However, *future* grants will have a fair value based on the share price at the time of those grants.

For share-based compensation, vesting can be based on:

- **Service:** The employee must remain employed for a given period. If the employee leaves before the end of the period, the grant is void and the employee is not entitled to any of the grant. A lapsed grant may require a company to adjust its statements retroactively.
- **Performance:** This is usually an additional condition to service. It requires that the company satisfy a metric such as EPS or net income.
- **Market conditions:** The share price must be at or above a specified value. This is often another type of performance condition.

Four different types of instruments can be used for share-based compensation. Exhibit 3 provides a summary:

Exhibit 3 Share-based compensation instruments

Instrument	Features
Restricted stock	<ul style="list-style-type: none"> • Shares, or restricted share units (RSUs) that are exchanged for shares upon settlement <ul style="list-style-type: none"> ○ Restricted shares have voting rights and receive dividends ○ RSUs have no voting rights and do not receive dividends
Options	<ul style="list-style-type: none"> • Call options on company shares <ul style="list-style-type: none"> ○ Not tradeable ○ Strike price = Share price at issuance
Stock: appreciation-based	<ul style="list-style-type: none"> • Cash or stock awarded based on share performance
Stock: purchase-based	<ul style="list-style-type: none"> • Employees purchase newly issued shares at a discount

Restricted Stock

Restricted stock refers to grants made to employees of the company's common stock that vest at some future date. The conditions for vesting could be the employee's years of service, the company's attainment of certain goals (eg, EPS, sales), or both. Restricted stock units (RSUs) are similar to restricted stock, but instead of actual shares, they are instruments that can be exchanged for common stock upon settlement.

The fair value for both restricted stock and RSUs is the share price on the date of the grant. The company's share-based compensation expense for the period is the product of:

- the number of shares of restricted stock,
- the price per share, and
- the percentage of restricted stock that vests during the period.

Stock Options

Employee stock options are call options on the company's common stock. The options are not tradeable, and they are usually issued with a strike price equal to the share price on the date of the award. The share-based compensation expense attributable to options is the product of:

- the number of options issued,
- the fair value of each option, and
- the percentage of options that are exercisable in each period.

The fair value of stock options is not easy to estimate. Stock option value has two elements: intrinsic value and time value. Time value can be a significant percentage of option value when there is a long time until the option can be exercised. Companies have significant discretion under both IFRS and US GAAP to determine a model for valuing employee stock options.



Example 1 Share-based compensation expense from restricted stock and options

ABC Company instituted a stock grant program on Jan 1 20X2 and will issue 100,000 RSUs each year; 25 percent of the RSUs vest each year over four years beginning in 20X2. At the same time, ABC granted 30,000 stock options. Each option can be exercised to purchase one share of ABC common stock for \$50. The stock options vest 50% each year, also beginning in 20X2.

Price per share:

Jan 1 20X2: \$50

Jan 1 20X3: \$60

The fair value of each option is assumed to be \$8.

What is ABC's total share-based compensation in 20X2 and 20X3?

Solutions

20X2:

RSU share-based compensation expense = $100,000 \times 0.25 \times \$50 = \$1,250,000$ Option share-based compensation expense = $30,000 \times 0.50 \times \$8 = \$120,000$ Total share-based compensation expense in 20X2 = $\$1,250,000 + 120,000 = \$1,370,000$

20X3:

RSU share-based compensation expense = $100,000 \times 0.25 \times \$60 = \$1,500,000$ Option share-based compensation expense = $30,000 \times 0.50 \times \$8 = \$120,000$ Total share-based compensation expense in 20X3 = $\$1,500,000 + 120,000 = \$1,620,000$

Share-Based Compensation Tax and Share Count Effects, Note Disclosures



LOS: Explain how share-based compensation affects the financial statements.

Share-based compensation is generally deductible, but there can be timing differences based on reporting requirements:

- For financial reporting, share-based compensation expense is reported ratably each year over the vesting period, and the amount of the expense is based on the fair value of the grant on the date of grant.
- For tax reporting, the deduction is allowed only after the settlement date.
 - For stock, the value of the deduction is the share price on the settlement date.
 - For options, the value of the deduction is the options' intrinsic value at exercise.

These requirements can result in the grantor receiving a greater tax deduction if the share price increases between the grant date and settlement date, but a smaller tax deduction if the share price decreases in the same period. Under IFRS, any gains or losses caused by the different deductions are applied directly to shareholder equity on the balance sheet. Under US GAAP, the gains (losses) increase (decrease) income tax expense on the income statement if the share price on the settlement date is greater than (less than) the price on the grant date.

Currently, most share-based grants are in restricted stock, rather than options. Employees may prefer restricted stock since it will have some value even if the price declines. In contrast, options will have no value if the share price is below the strike price on the exercise date. Also, restricted stock is easier for employees to understand and does not require any future cash outlay to obtain stock. Thus, restricted stock may better align shareholder and employee interests.

Share-Based Compensation and Shares Outstanding

The number of common shares reported as outstanding increases during the period that grants settle; any grants that have not settled are not included in that number. The resulting dilution of existing shares can be offset by share repurchases.

Since shares that have not yet settled are not outstanding, they are not included in calculating basic EPS, but they are included in calculating diluted EPS. The calculation of diluted EPS uses the treasury stock method, which relies on several assumptions:

- All restricted shares and RSUs are immediately vested and settled. However, management has discretion to include only all restricted shares *likely* to vest and settle. This generally means that they include shares vested based on service but exclude shares vested based on performance.
- The company's average unrecognized share-based compensation expense for the period can be added back since that expense will not be paid, assuming settlement and exercise.
- Options are exercised if they are in the money, that is, if the average share price over the period is greater than the exercise price.
- All proceeds from settlement and exercise are used to repurchase shares.

Therefore, the calculation of diluted EPS includes share-based awards that actually vest and settle during the period, as well as the company's average unrecognized share-based compensation expense for the period.

Companies reporting under IFRS must disclose the types of share-based compensation arrangements used, the determination of the fair value of the instruments granted during the period, and the impact of the share-based transactions on the company's net income (or loss) and financial position.

Share-Based Compensation and Financial Statement Modeling



LOS: Explain how to forecast share-based compensation expense and shares outstanding in a financial statement model and their use in valuation.

Analysts often need to forecast future share-based compensation expenses. The common approach is to forecast future share-based expense as a percentage of revenues. This affords the analyst flexibility to utilize different forecasting techniques, such as historical average, management guidance, or reversion to a mean figure over time.

Forecasting Shares Outstanding With Share-Based Awards

EPS can be affected by the existence of dilutive shares, which can arise through share-based compensation. Therefore, when forecasting EPS, analysts need to estimate with some degree of accuracy how many common shares will exist in the future. This estimate, in turn, requires estimating how many dilutive shares will be created.

Determining the future number of dilutive shares can be difficult as disclosures do not always provide sufficient detail. One technique is to assume that a constant percentage of share awards is dilutive based on historical observations. Stock options also impact forecasted cash flows, along with additional shares, while RSUs do not impact cash flows.

Valuation Considerations With Share-Based Compensation

Analysts must consider share-based compensation in a valuation since the additional shares dilute existing shareholders' interests. Also, companies often offset the dilutive effect of compensation by repurchasing shares in the open market, which creates a shareholder distribution.

Discounted cash flow models must be modified to account for the dilution from outstanding but unvested awards and from future awards. For outstanding but unvested awards, the analyst can use diluted shares outstanding plus anti-dilutive securities for determining per-share values in the model; another approach is to add the gross amount of potentially dilutive securities to basic shares outstanding. For estimating dilution from future awards, the curriculum suggests deducting share-based compensation from free cash flow as the most practical approach.

Financial Reporting for Post-Employment Benefits



LOS: Explain how post-employment benefits affect the financial statements.

Post-employment benefits are classified as defined contribution (DC) or defined benefit (DB) plans. DC plans are much simpler to implement and maintain. In a DC plan, the employer (also known as the sponsor) establishes the plan, selects investment options, and establishes separate accounts for each of the employees (ie, the participants). The sponsor makes predefined contributions to each participant's account, while participants can also make their own contributions. However, investment decisions in a DC plan are made only by the participant. The sponsor assumes no responsibility for investment performance and has no liability for any investment losses suffered by the participants.

DB plans create a sponsor obligation: a benefit to be paid in retirement. The benefit may be a lump sum or an annuity paid over some fixed or indeterminate period. The amount of the benefit is typically based on some combination of years worked and compensation. The sponsor makes periodic payments into the plan, and in most cases those payments are tax deductible. Since the sponsor has promised the benefit, most regulations require the sponsor to prefund the retirement payments, which means that contributions for a younger participant may begin decades before the participant receives benefits.

Another type of DB plan does not pay *money* benefits in retirement, but instead a benefit such as life and/or health insurance. Such plans are broadly referred to as other post-employment benefit (OPEB) plans. OPEB plans usually do not require any prefunding.

Financial Reporting for DC Plans

For DC plans, the sponsor's contribution is recorded as an expense on the income statement. There are no balance sheet consequences, unless the sponsor has not yet made the agreed-upon contribution for the period; in that case, the sponsor would show a current liability for the amount of the contribution.

Financial Reporting for DB Plans

Under both IFRS and US GAAP, the DB liability (or asset) reported on the balance sheet equals the pension plan's funded status (FS). The funded status equals the difference between the fair value of plan assets (FVPA) and pension obligation (PO), so it represents a net amount.

$$\text{Funded status} = \text{Fair value of plan assets} - \text{Pension obligation}$$

The FVPA consists of the value of the assets held by the plan, which can be cash or securities. The PO is the present value of expected future payments to participants pursuant to the DB plan.

- If $PO > FVPA$, the plan is said to be underfunded, and a net pension liability equal to the negative difference is recognized on the balance sheet.
- If $PO < FVPA$, the plan is said to be overfunded, and a net pension asset equal to the positive difference is recognized on the balance sheet.

Companies sometimes maintain more than one DB plan. Each plan's funded status stands on its own; overfunded plans cannot be netted against underfunded plans to create an overall "net" asset or liability. This means that a company could report both a pension asset and a pension liability.

On the income statement, the sponsor recognizes an expense each period. Under IFRS, pension expense has the following three components, two of which are recognized on the income statement and one in other comprehensive income (OCI):

- **Service cost** is an operating expense on the income statement. Current service costs refer to the increase in the pension obligation (present value of promised benefits) due to an employee's service in the current period. Each additional year of service increases the amount of the annual pension payment that the company would owe to the employee upon her retirement, and therefore also increases the total present value of promised payments (ie, the pension obligation).

Past service costs (PSC) refer to the increase in the pension obligation from retroactive benefits given to employees for years of service provided before the date of adoption, amendment, or curtailment of the plan.

- **Net interest expense/income** is the increase for the period to the accrued interest on the net pension assets or liabilities.
- **Remeasurement** applies to the net pension liability or asset. It includes differences between the actual return on plan assets and the amount assumed in the net interest expense/income calculation and actuarial gains/losses, which arise from changes in assumptions such as salary increases, discount rates, and mortality rates. Remeasurement is the component included in OCI, rather than the income statement.

US GAAP and IFRS Differences in DB Pension Accounting

IFRS and US GAAP treat FVPA and PO reporting identically, but there are differences with respect to pension expense reporting. US GAAP recognize five components to pension expense:

- **Current service costs**, which are the same as under IFRS.
- **Interest cost**, which is reported on a gross basis, rather than net (as under IFRS).
- **Expected return on plan assets**, which is management's estimate of what it thinks the return on plan assets will be.
- **Amortization of past service costs**. US GAAP require sponsors to report PSC in OCI for the period in which the change giving rise to the PSC occurs. PSC is amortized to the income statement over the remaining service lives of participants.
- **Amortization of net gains or losses**. Actuarial gains/losses and differences between actual and expected returns on assets can be reported on the income statement. However, it is more common for them to be reported in OCI, where they are amortized to the income statement using the "corridor approach."

Disclosures for Post-Employment Benefit Plans

There are minimal requirements for disclosures related to DB plans. IFRS only require sponsors to disclose the amount recognized as an expense. For an OPEB, however, required disclosures include the characteristics and risks of the plan, a description of the amounts in the financial statements related to the plan, and the effects of the plan on the sponsor's cash flows.

Pension reporting for DB plans involves a significant amount of discretion by management with respect to estimates. This means that analysts must check the disclosures and determine whether they are realistic, as adjustments may be necessary.

Financial Modeling and Valuation Considerations for Post-Employment Benefits



LOS: Explain financial modeling and valuation considerations for post-employment benefits.

For DC plans, financial modeling is straightforward and typically related to forecasts of operating expense. This process tends to work well since DC contributions are based on a percentage of salaries and are made in cash.

For DB plans, the general approach is to model service costs, remeasurements, net interest expense (income), and future sponsor contributions. For small DB plans ($\leq 5\%$ of the sponsor's market capitalization), there may not be much need for detailed forecasts since the pension is relatively immaterial compared with the company as a whole.

Valuation Considerations for DB Plans

Valuations for DB plans must focus on two considerations:

- the funded status of the plan and
- future service costs (unless the plan is frozen and no further benefits will be accrued).

Underfunded plans are considered as a sponsor liability. Overfunded plans are not typically considered in valuation, mainly since the plan assets are for the benefit of the participants and are not really "assets" that the sponsor can generate earnings from.

Future service costs are not included in funded status. Instead, they are future compensation costs that a participant earns as a substitute for short-term benefits. However, service costs should be deducted from free cash flow in a discounted cash flow valuation model.

