

CHAPTER 1

A COMPREHENSIVE REVIEW OF IFRS 15 REVENUE FROM CONTRACTS WITH CUSTOMERS

1.1 Introduction

1.1.1 What is Revenue?

Revenue is an important measure of an entity's performance. It is used widely by investors and other users for making comparisons and investment decisions. Revenue is usually the first line item in the statement of comprehensive income of reporting entities. It represents income of various types that are earned in an accounting period. The types of income that can be grouped and presented under revenue depend upon the nature of the entity's operations. The more common types are revenues from sales of goods and from rendering of services. However, it may also include rental income (of hotel operations), interest income (of financial institutions), royalties, commissions and dividends. Revenue thus represents the gross inflow of cash, receivables or other considerations arising in the ordinary activities of an entity. The ordinary activities of an entity are any activities which are undertaken by an entity as part of its business and such other related activities in which the entity engages in furtherance of, incidental to, or arising from those activities.

In the case of a single entity, the identification of "what" constitutes revenue is usually not a problem in practice. For example, in the case of a trading company, revenue will represent sales of goods and rendering of services as these are activities in its ordinary course of business. For such companies, a sale of a property would not be classified as revenue as it is not part of its ordinary activities (the gain or loss arising from the sale of property would be reflected separately in its profit or loss). However, for a property developer, sales of properties would be its revenue as they are activities within the ordinary course of business of a developer. Likewise, interest income is not treated as part of revenue for most entities (but shown separately as interest income), but in the case of banks and financial institutions, interest income is the main source of revenue.

In the case of a group or of an entity with diversified operations, the identification of revenue items may pose some difficulties. For example, a group with operations in trading, property and finance sectors may include various types of revenues, such as sales of goods, sales of properties as well as interest income. Yet within the group, an item such as interest income which is revenue for a finance subsidiary will not be revenue for a property subsidiary. In such cases, the aggregation of items to be included as revenue for the group would depend upon the classification of revenues accorded to each subsidiary. In other words, the revenues of the companies in a group are consolidated as they stand in their respective income statements.

There are two main issues in accounting for revenue, as follows:

- (a) the measurement of revenue; and
- (b) the timing of revenue recognition.

1.1.2 Rationale for the New Model

Formerly, the two main Standards for revenue accounting in the IFRSs were IAS 18 *Revenue* and IAS 11 *Construction Contracts*. The IASB noted that there were inconsistencies and weaknesses in the former Standards. Significant diversity in revenue recognition practices had arisen because the former Standards

contained limited guidance on many important topics, such as accounting for arrangements with multiple elements. It was difficult to apply the former Standards to transactions other than the simple sales of goods or rendering of services, for example, arrangements that contain variable considerations or multiple elements. In agreements for the construction of real estate, the requirements were contained in the former IFRIC 15 *Agreements for the Construction of Real Estate*. However, its guidance on transfer of control and the significant risks and rewards of ownership over time were not definitive and this had created diverse views, not just in Malaysia but also among different jurisdictions. Some were of the view that the completed contract method shall be applied for revenue recognition if the customer has no control over the design and structure of the development unit whilst construction is in progress. Others were of the view that the percentage of completion method shall be applied for revenue recognition if there is continuous transfer of control to the customer.

Moreover, the former Standards had only limited guidance on other emerging transactions, such as licensing arrangements and warranties that include a service component. Thus, revenue recognition issues continue to arise as new types of transactions emerged. The IASB also noted that the disclosure requirements in the former Standards were inadequate for investors to understand an entity's revenue, and the judgements and estimates made by the entity in recognising that revenue. For instance, investors and other users were concerned that the revenue information disclosed was often 'boilerplate' in nature or were presented in isolation and without explaining how the revenue recognised relates to other information in the financial statements.

To correct the inconsistencies and weaknesses in the former Standards and to cater for the emerging complex revenue transactions, the IASB, together with the US FASB, undertook a joint project to develop a common model for revenue accounting. An exposure draft (ED/2010/6) was issued in June 2010 and a revised exposure draft (ED/2011/6) was issued in November 2011. In May 2014, the IASB issued the long-awaited IFRS 15 *Revenue from Contracts with Customers*, which sets a new model for revenue accounting.

This new IFRS is effective for financial periods beginning on or after 1 January 2018, with earlier application permitted. It supersedes IAS 18 *Revenue*, IAS 11 *Construction Contracts*, and all revenue-related Interpretations: IFRIC 13 *Customer Loyalty Programmes*, IFRIC 15 *Agreements for the Construction of Real Estate*, IFRIC 18 *Transfer of Assets from Customers* and SIC-31 *Revenue — Barter Transactions Involving Advertising Services* (except for IFRIC 12 *Service Concession Arrangements*). The new model would change the former practice for revenue accounting of some entities and in some industries. In Malaysia, for transitioning entities in the property development sector, this new IFRS provides clear guidance that would resolve the interpretation problems in the former IFRIC 15. The MASB has issued MFRS 15 which is identical to IFRS 15 in all material respects.

1.1.3 The Significant Changes Made

For contracts with multiple elements, an entity would need to identify the separate performance obligations in a contract and account for each component separately. This includes separating multiple goods and services in a transaction, separating a warranty if it contains a service component, and a licensing component in a sale of good or service transaction. The transaction price (ie consideration receivable) must be allocated to the separate performance obligations in a contract on the basis of the relative stand-alone selling prices.

For long-term contracts with customers, an entity would need to assess whether it satisfies a performance obligation over time or at a point in time. The assessment is based primarily on when (or as) an entity transfers control of an asset to the customer, with control being assessed from the perspective of the customer. If a performance obligation is satisfied over time, the entity recognises revenue over time by measuring the progress towards complete satisfaction of that performance obligation.

Costs that are related to a contract with a customer would include incremental costs to obtain and costs to fulfil a contract and must be recognised as an asset (the equivalent of a contract work in progress). IFRS 15 requires that the recognised asset must be subjected to systematic amortisation by reference to the revenue recognised in each period, and regular impairment test.

For disclosures, the new IFRS requires extensive disclosures, both qualitative and quantitative information, about contracts with customers. These include judgements and estimates made, disaggregated information about recognised revenue into appropriate categories, and performance obligations remaining at the end of the reporting period.

1.2 The New Model

The objective of IFRS 15 is to establish the principles that an entity shall apply to report useful information to users of financial statements about the nature, amount, timing and uncertainty of revenue and cash flows arising from a contract with a customer [IFRS 15.1].

The core principle of IFRS 15 is that an entity shall recognise revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services [IFRS 15.2].

To apply the core revenue principle, an entity needs to follow the following five main steps:

- Identify the contract with the customer;
- Identify the performance obligations in the contract;
- Determine the transaction price;
- Allocate the transaction price to the performance obligations; and
- Recognise revenue when (or as) the entity satisfies a performance obligation.

In a straightforward sale of retail goods, applying these requirements to a single performance obligation would not pose any practical problem. However, in some cases of complex revenue transactions, the entity needs to consider the terms of the contract and related facts and circumstances when using judgements in the application of the IFRS.

1.3 Scope of IFRS 15

An entity shall apply this Standard to all contracts with customers, except the following:

- lease contracts within the scope of IFRS 16 *Leases*;
- insurance contracts within the scope of IFRS 17 *Insurance Contracts*;
- financial instruments and other contractual rights or obligations within the scope of IFRS 9 *Financial Instruments*, IFRS 10 *Consolidated Financial Statements*, IFRS 11 *Joint Arrangements*, IAS 27 *Separate Financial Statements* and IAS 28 *Investments in Associates and Joint Ventures*; and
- non-monetary exchanges between entities in the same line of business to facilitate sales to customers or potential customers. For example, this Standard would not apply to a contract between two oil companies that agree to an exchange of oil to fulfil demand from their customers in different specified locations on a timely basis [IFRS 15.5].

Unlike the former IAS 18 *Revenue* which scoped out biological assets and agricultural produce measured at fair value less costs to sell in accordance with IAS 41 *Agriculture*, there is no explicit exception in IFRS 15 for this activity. IFRS 15 is a contract-based reporting standard where revenue is recognised in profit or loss for contracts with customers. IAS 41, on the other hand, is an activity-based reporting standard that focuses on the biological transformation of the biological assets and agricultural produce at the point of harvest. A gain (or loss) is recognised in profit or loss as the biological assets transform even if there is no contract to sell the assets to a customer. Thus, to bring biological assets and agricultural produce within the scope of IFRS 15 may result in conflicts of principles as each is based on a different measurement model.

1.4 Recognition

1.4.1 Identifying the Contract

A contract is defined in the IFRS as “an agreement between two or more parties that creates enforceable rights and obligations”. Enforceability of the rights and obligations in a contract is a matter of law. Contracts can be written, oral or implied by an entity’s customary business practices. An entity shall consider those practices and processes in determining whether and when an agreement with a customer creates enforceable rights and obligations.

An entity accounts for a contract with a customer only when all of the following criteria are met:

- the parties to the contract *have approved* the contract (in writing, orally or in accordance with other customary business practices) and are committed to perform their respective obligations;
- the entity can identify each *party’s rights* regarding the goods or services to be transferred;
- the entity can identify the *payment terms* for the goods or services to be transferred;
- the contract has *commercial substance* (ie the risk, timing or amount of the entity’s future cash flows is expected to change as a result of the contract); and
- it is *probable* that the entity will collect the *consideration* to which it will be entitled for the goods or services that will be transferred to the customer. In evaluating whether collectibility of an amount of consideration is probable, an entity shall consider only the customer’s ability and intention to pay that amount of consideration when it is due. The amount of consideration to which the entity will be entitled may be less than the price stated in the contract if the consideration is variable because the entity may offer the customer a price concession [IFRS 15.9].

A contract does not exist for the purpose of the IFRS if each party to the contract has the unilateral enforceable right to terminate a wholly unperformed contract without compensating the other party (parties). A contract is wholly unperformed if: (a) the entity has not yet transferred any promised goods or services to the customer; and (b) it has not yet received, and is not entitled to receive, any consideration in exchange for promised goods or services. This requirement is necessary to prevent entities from recognising revenue in the early stages of long-terms contracts when there are still terms or precedent conditions not yet finalised.

Example 1

On 1 January 20x8, Entity P, a property entity, enters into an agreement to sell a property to Entity K for a consideration of RM200 million. Entity K pays an upfront amount of RM20 million. The initial deposit is refundable if the precedent conditions are not met and the agreement is terminated within one year. The agreement is subject to shareholders’ approvals of both entities and on completion of a due diligence audit on the property.

As at 31 March 20x8, the precedent conditions are not yet met. Thus, the agreement with Entity K does not yet give rise to a contract for revenue accounting within the scope of IFRS 15. The initial deposit received is recorded as a payable rather than a contract liability.

1.4.2 Combination of Contracts

The Standard specifies the accounting for an individual contract with a customer. In some cases, the entity needs to account for two or more contracts together. An entity shall combine two or more contracts entered into at or near the same time with the same customer (or related parties of the customer) and account for the contracts as a single contract if:

- the contracts are negotiated as a package with a single commercial objective;
- the amount of consideration to be paid in one contract depends on the price or performance of the other contract; or
- the goods or services promised in the contracts (or some goods or services promised in each of the contracts) are a single performance obligation [IFRS 15.17].

These criteria for combining contracts are largely similar to those in the former IAS 11, except that the combining of contracts into a single contract applies only if the contracts are with the same customer (or related parties of the customer, ie entities in the same group). The former IAS 11 required a group of contracts, whether with a single customer or with several customers, shall be treated as a single construction contract when the specified criteria were met.

Example 2

A contractor enters into three contracts for the construction of three separate buildings with a customer and its related parties (companies in the same group). The contracts shall be combined into single contract if they meet any of the three criteria above, eg when the three contracts are negotiated as a package with a single commercial objective. If any criterion is not met, each contract is accounted for separately.

Generally, IFRS 15 does not permit combination of contracts with different customers. However, the Standard provides for a practical expedient in which an entity may apply this Standard to a portfolio of contracts (or performance obligations) with similar characteristics if the entity reasonably expects that the effects on the financial statements of applying this Standard to the portfolio would not differ materially from applying this Standard to the individual contracts (or performance obligations) within that portfolio [IFRS 15.4].

When accounting for a portfolio, an entity shall use estimates and assumptions that reflect the size and composition of the portfolio [IFRS 15.4]. These requirements would typically apply to contracts that transfer goods or services that are relatively *homogeneous* and that have a similar *pattern or timing of transfer of control*.

Example 3

An entity constructs 200 units of double-storey terrace houses and signs S&P agreement with each house buyer in a development project. If the 200 houses are homogeneous (for example, in design and build-up area) and have the same selling price, they are combined as one portfolio. However, if there are two types of designs (eg premium houses and normal houses) with different build-up areas and different selling prices, the entity identifies two separate portfolios in the development project.

1.4.3 Contract Modifications

A contract modification is a change in the scope or price (or both) of a contract that is approved by the parties to the contract, for example, a change order, a variation or an amendment. It exists when the parties to a contract approve a modification that either creates new or changes existing enforceable rights and obligations of the parties to the contract. If a contract modification has not been approved by the parties to a contract, an entity shall continue to apply the IFRS to the existing contract until the contract modification is approved.

If a change in scope has been approved by the parties but the corresponding change in price has not yet been determined, an entity applies this IFRS to the modified contract when the entity has an expectation that the price of the modification will be approved. The entity needs to re-estimate the transaction price in such cases. If the contract modification results only in a change in the transaction price, an entity accounts for the modification as a change in the transaction price.

An entity accounts for a contract modification as a separate contract if:

- the scope of the contract increases because of the addition of promised goods or services that are distinct; and
- the price of the contract increases by an amount of consideration that reflects the entity’s stand-alone selling prices of the additional promised goods or services and any appropriate adjustments to those prices to reflect the circumstances of the particular contract [IFRS 15.20].

Example 4

An entity has a contract to construct an office building for a customer. A contract modification arises when the customer requests for an annexure block to be built next to the office building. The price of this annexure is negotiated separately.

In this case, the contract modification is a separate contract because the scope of the contract increases due to the additional good that is distinct, and the price of the contract increases by an amount of consideration that reflects the entity's stand-alone selling price of the additional promised good.

If a contract modification is not accounted as a separate contract, an entity needs to evaluate the remaining goods and services on the modified contract (ie the promised goods or services not yet transferred at the date of the contract modification) and account for the modified contract depending on whether the remaining goods and services are distinct from the goods or services already transferred to the customer.

The entity shall account for the contract modification as if it were a termination of the existing contract and the creation of a new contract if the remaining goods or services are distinct from the goods or services transferred on or before the date of the contract modification.

If the remaining goods or services are not distinct, the modification forms a part of the existing contract in a single performance obligation that is partially satisfied at the date of the contract modification. If the remaining goods and services together with the modification are a combination of both distinct and non-distinct goods and services, the entity would need to separate the two components and account for the distinct component as a new performance obligation [IFRS 15.21].

Example 5

An entity has a contract with a customer and the transaction price is RM1,600,000. The cumulative revenue recognised in profit or loss to date is RM800,000 and the balance of RM800,000 is not yet recognised as revenue. A contract modification is approved by the parties and the additional consideration for the modification is RM200,000. The entity concludes that the modification is part of the existing contract.

If the remaining goods and services promised in the contract together with the modification are distinct from those already transferred to the customer, the entity allocates total consideration of RM1,000,000 to the remaining goods and services together with the modification in the contract as if it were a new contract.

If the remaining goods or services are not distinct, the modification has an effect on the transaction price and based on the stage of completion, the entity shall adjust for an increase in revenue at the date of the contract modification (ie the adjustment to revenue is made on a cumulative catch-up basis). In this case, an additional revenue of RM100,000 is recognised in profit or loss at the date of modification.

The requirement to segment a single contract and account for it as two or more separate contracts (in the former IAS 11) is not specifically provided for in the new IFRS 15. The segmentation guidance in the former IAS 11 is redundant when an entity applies the performance obligations approach of the new IFRS, ie if a contract has separate performance obligations, each has to be accounted for separately, which is the same as the segmentation requirement of the former IAS 11.

Example 6

A contractor enters into a contract with a university to construct various blocks of buildings, such as a library, a hall, an administration block and a lecture theatre. When each of these buildings meets the conditions as a distinct performance obligation, then each shall be accounted for as a separate performance obligation, notwithstanding the fact that the contractor has signed one overall contract with the university.

1.5 Identifying Performance Obligations

An essential feature of this new IFRS is the concept of *performance obligation* embodied in a contract with a customer to provide goods and services in exchange for consideration. A performance obligation is defined as "a promise in a contract with a customer to transfer a good or service to the customer". The goods and services include not only those routinely sold or provided by the entity but also with the service for arranging for another party to transfer goods and services (for example, acting as an agent of another party), standing ready to provide goods and services, constructing or developing an asset on behalf of a customer, granting licences, rights to use and options, and performing a contractually agreed task.

At contract inception, an entity shall assess the goods or services promised in a contract with a customer and shall identify as a performance obligation each promise to transfer to the customer either:

- (a) a good or service (or a bundle of goods or services) that is distinct; or
- (b) a series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer [IFRS 15.22].

If an entity promises to transfer more than one good or service, the entity shall account for each promised good or service as a separate performance obligation only if it is distinct. If a good or service is not distinct, an entity shall combine that good or service with other promised goods and services until the entity identifies a "bundle" of goods or services that is distinct. In some cases, such bundling may result in an entity accounting for all the goods and services promised in the contract as a single performance obligation.

A good or service that is promised to a customer is distinct if both of the following criteria are met:

- (a) the *customer can benefit* from the good or service on its own or together with other resources that are readily available to the customer (ie the good or service is capable of being distinct); and
- (b) the entity's promise to transfer the good or service to the customer is *separately identifiable* from other promises in the contract (ie the good or service is distinct within the context of the contract) [IFRS 15.27].

Example 7

A manufacturer enters into a contract with a customer to design and produce a customer-specific machine, together with commissioning and installation and after-sales services. In this case, the manufacturer would need to identify the various components in the arrangement and account for each as a separate performance obligation because the customer can benefit from the good or service on its own. It would probably identify four separate performance obligations of: (a) design, (b) manufacture, (c) commissioning and installation, and (d) after-sale services.

Similarly, if a software developer enters into a contract with a customer to transfer a software licence, perform an installation service and provide unspecified software updates and technical support (online and telephone) for a specified period, it would need to assess whether each promised good or service is distinct. It would probably identify four separate performance obligations of: (a) the software licence, (b) an installation service, (c) software updates, and (d) technical support.

In contrast, if an entity enters into a contract with a customer to construct a building, the customer would also benefit from the supply of bricks and other construction materials as well as the supply of labour. However, these items would not be distinct if the entity is providing the materials and construction labour to the customer as part of its promise in the contract to construct the building for the customer. The supplies of bricks, other materials and labour are bundled together as a single performance obligation.

1.5.1 Warranties

It is common for an entity to provide a warranty in connection with the sale of a product (whether good or service). Some warranties provide customers with assurance that the related product will function as the parties intended because it complies with agreed-upon specifications. These are known as *assurance-type warranties*. Other warranties provide the customer with a service in addition to the assurance that the product complies with agreed-upon specifications. These are known as *service-type warranties*.

If the customer has the option to purchase a warranty separately (for example, because the warranty is priced or negotiated separately), the warranty is a distinct service because the entity promises to provide the service to the customer in addition to the product that has the functionality described in the contract. In those circumstances, an entity shall account for the promised warranty as a separate performance obligation. The entity shall allocate a portion of the transaction price to that performance obligation in the recognition of revenue.

If the customer does not have the option to purchase a warranty separately, an entity shall account for the warranty in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, unless the promised warranty, or a part of the promised warranty, provides the customer with a service in addition to the assurance that the product complies with agreed-upon specifications. If an entity promises both an assurance-type warranty and a service-type warranty but cannot reasonably account for them separately, the entity shall account for both of the warranties together as a single performance obligation.

Example 8

Entity K, a manufacturer of household electronic appliances, sells 10 units of a robotic vacuum cleaners to its dealer at a price of RM2,100 per unit. The contract includes a three-year warranty and service guarantee for customers who purchase the vacuum cleaners from the dealer if the customers opt to pay an additional RM600 per unit. Cost to manufacture the vacuum cleaner is RM1,100 per unit. Based on its past experience, Entity K expects that all customers will opt for the warranty and service guarantee.

The dealer sells all the 10 units to its customers at a price of RM3,000 per unit and all the customers opt to pay an additional RM600 per unit for the warranty and services, which are collected by the dealer and paid to Entity K. GST is 6% on billings.

Required

Explain and show the accounting requirements in the books of Entity K and the dealer.

Solution 8

The warranty and service components are bundled as a separate performance obligation from the sale of good. On the date of sale, Entity K records the following:

	RM	RM
Dr Trade receivable — dealer	28,620	
Cr Revenue in profit or loss — good component		21,000
Cr Contract liability — warranty and service component		6,000
Cr Output GST payable (6% × 27,000)		1,620
<i>- to record billing and sale of goods to dealer.</i>		
Dr Cost of sales in profit or loss (10 × 1,100)	11,000	
Cr Inventory		11,000
<i>- to recognise cost of inventory sold in profit or loss.</i>		

The contract liability will be reversed and recognised as revenue over the three-year period when the services are performed. The costs incurred to perform the warranty and service component are recognised as an expense over the three-year period.

In the books of the dealer, it records the purchase of the goods as follows:

	RM'000	RM'000
Dr Inventory (10 × 2,100)	21,000	
Dr Input GST receivable	1,620	
Dr Prepaid customer warranty — as other debtors	6,000	
Cr Trade payable — Entity K		28,620
<i>- to record purchase of inventory and customer warranty.</i>		

When sales are made to customers:

Dr Cash	38,160	
Cr Revenue in profit or loss (10 × 3,000)		30,000
Cr Prepaid customer warranty — derecognised		6,000
Cr Output GST payable (6% × 36,000)		2,160
<i>- to record sales of goods to customers.</i>		
Dr Cost of sales	21,000	
Cr Inventory		21,000
<i>- to recognise cost of inventory sold in profit or loss.</i>		

1.5.2 Licensing

A licensing arrangement with a customer establishes the customer's right to the intellectual property of an entity. Licences of intellectual property may include: (a) software and technology, (b) motion pictures, music and other forms of media and entertainment, (c) franchises, and (d) patents, trademarks and copyrights. In addition to a promise to grant a licence to a customer, an entity may also promise to transfer other goods and services to the customer.

If the promise to grant a licence is not distinct from other promised goods or services in the contract, an entity shall account for the promise to grant a licence and those other goods or services together as a single performance obligation (for example, a licence that forms a component of a tangible good and that is integral to the functionality of the good, or a licence that the customer can benefit from only in conjunction with related service, such as an online service provided by that entity that enables, by granting a licence, the customer to access content).

Example 9

An entity enters into a contract with a customer to licence (for a period of three years) intellectual property related to the design and production processes for a good. The customer will obtain any updates to that intellectual property for new designs or production processes that may be developed by the entity. The updates are essential to the customer's ability to use the licence, because the customer operates in an industry in which technologies change rapidly. The entity does not sell the updates separately and the customer does not have the option to purchase the licence without the updates.

Although the customer can obtain benefit from the licence on its own without the updates, that benefit would be limited because the updates are critical to the customer's ability to continue to make use of the licence in the rapidly changing technological environment in which the customer operates. The customer does not have the option to purchase the licence without the updates and the customer obtains limited benefit from the licence without the updates. The licence and the updates are highly interrelated and the promise to grant the licence is *not distinct* within the context of the contract, because the licence is not separately identifiable from the promise to provide the updates.

Because the customer simultaneously receives and consumes the benefits of the entity's performance as it occurs, the performance obligation is satisfied over time.

If the promise to grant the licence is distinct from the other promised goods or services in the contract, it is accounted for as a separate performance obligation. An entity shall determine whether the licence transfers to a customer either at a point in time or over time. In making this determination, an entity shall consider whether the nature of the entity's promise in granting the licence to a customer is to provide the customer with either:

- (a) a right to access the entity's intellectual property as it exists throughout the licence period (ie usage-based licence); or
- (b) a right to use the entity's intellectual property as it exists at the point in time at which the licence is granted (ie sales-based licence).

An entity considers whether a customer can direct the use of, and obtain substantially all of the remaining benefits from, a licence at the point in time at which the licence is granted. If the intellectual property to which the customer has rights changes throughout the licence period, the customer cannot direct the use of, and obtain substantially all of the remaining benefits from the licence granted. In this case, the licence provides the customer with a right to access the entity's intellectual property. In contrast, a customer can direct the use of, and obtain substantially all of the remaining benefits from, the licence if the intellectual property to which the customer has rights will not change.

The nature of an entity's promise in granting a licence is a promise to provide a right to access the entity's intellectual property if all of the following criteria are met:

- (a) the contract requires, or the customer reasonably expects, that the entity will undertake activities that significantly affect the intellectual property to which the customer has rights;
- (b) the rights granted by the licence directly expose the customer to any positive or negative effects of the entity's activities; and
- (c) those activities do not result in the transfer of a good or a service to a customer as those activities occur.

Example 10

A software entity develops anti-virus programs and sells or licenses the software to customers. It sells a licence to a customer for an amount of RM480 that entitles the customer to use the anti-virus program on-line for two years. The entity continues to update the anti-virus program and the customer has access to all the updates for the two-year period. In this case, the entity controls the development of the software and the customer has rights to access the intellectual property. Hence, it is a usage-based licence and revenue is recognised over the two-year period of the licensing agreement.

An entity recognises revenue for a sales-based or usage-based promised in exchange for a licence of intellectual property only when (or as) the later of the events occur:

- (a) the subsequent sale or usage occurs; or
- (b) the performance obligation to which some or all of the sales-based or usage based royalty that has been allocated has been satisfied (or partially satisfied).

If a licence is a right to access an entity's intellectual property (usage-based licence), the entity accounts for the promise to grant a licence as a performance obligation satisfied over time because the customer will simultaneously receive and consume the benefit from the entity's performance of providing access to its intellectual property as it occurs. If the licence is a right to use the entity's intellectual property as that intellectual property exists (in terms of form and functionality) at the point in time at which the licence is granted to the customer (sales-based licence), the entity accounts for the promise to provide a right to use the entity's intellectual property as a performance obligation satisfied at a point in time.

Example 11

An entity, a pharmaceutical company, licenses to a customer its patent rights to an approved drug compound for 10 years and also promises to manufacture the drug for the customer. The drug is a mature product. The manufacturing process used to produce the drug is not unique or specialised and several other entities can also manufacture the drug for the customer.

The drug is a mature product. For these types of mature products, the entity's customary business practices are not to undertake any activities to support the drug. The contract does not require, and the customer does not reasonably expect, the entity to undertake activities that significantly affect the intellectual property to which the customer has rights. In its assessment, the entity does not take into consideration the separate performance obligation of promising to provide a manufacturing service.

Because the manufacturing process can be provided by other entities, the customer can benefit from the licence on its own (ie without the manufacturing service) and that the licence is separately identifiable from the manufacturing process. Thus, the licence and the manufacturing service are *distinct* and the entity has two performance obligations: (a) licence of patent rights; and (b) manufacturing service.

The nature of the entity's promise in transferring the licence is to provide a right to use the entity's intellectual property in the form and the functionality with which it exists at the point in time that it is granted to the customer. Consequently, the entity accounts for the licence as a performance obligation satisfied at a point in time, ie a sale-based licence.

1.5.3 Incidental and Sales Incentives

Some entities provide sales incentives or otherwise incidental or ancillary services to the other promised goods or services in contract with a customer. An entity would need to assess whether the promised goods or services from the incidental obligations and sales incentives are goods or services that are distinct. If they are distinct, the entity would need to account for them as a separate performance obligation.

For example, in the automotive industry, a manufacturer sells cars with an incentive such as free maintenance that will be provided for a specified period. In the real estate industry, a property developer may provide buyers of housing units with incentives such as free built-in cabinets, free air-conditioning units or free club membership.

Example 12

A car manufacturer sells a car (a Mercedes Benz) to a customer for RM360,000. As part of the sale incentives, the car is fitted with air-conditioning unit, a stereo set and remote control gadgets.

The contract also includes a three-year warranty for manufacturing defects and a three-year free maintenance service. If without warranty and services, the price of the Mercedes as a stand-alone good is RM280,000. Goods and services tax is 6% of the selling price.

In this case, the manufacturer would identify its promise to deliver a car that comes with the incentives of air-conditioning unit, stereo set and remote control gadgets as a performance obligation. The warranty for defects and the services are combined as a separate performance obligation. The journal entry of the initial recognition would be as follows:

	RM	RM
Dr Cash/receivable (360,000 + 21,600)	381,600	
Cr Revenue		280,000
Cr Contract liability — deferred revenue		80,000
Cr Output GST payable (6% × 360,000)		21,600

The deferred revenue shall be recognised as revenue over the three-year period when the services are performed over time. Costs of warranty and services are recognised as an expense over time when the services are performed.

1.5.4 Customer Loyalty Programmes

An entity may grant to its customers as part of a sales transaction, award credits or points which may, subject to meeting any further conditions, be used to redeem for free or discounted goods or services. These incentives are known as customer loyalty programmes, which were previously addressed in IFRIC 13 *Customer Loyalty Programmes*.

The credit awards or points provide a material right to customers that they would not receive without entering into a contract. Consequently, the promise to provide points to the customer is a performance obligation for revenue accounting separate from the sales of goods.

Example 13

An entity has a customer loyalty programme that rewards a customer with one customer loyalty point for every RM10 of purchases. Each point is redeemable for a RM1 discount on any future purchases of the entity's products. During a reporting period, customers purchase products for RM100,000 and earn 10,000 points that are redeemable for future purchases.

The consideration is fixed and the stand-alone selling price of the purchased products is RM100,000. The entity expects 9,500 points to be redeemed. The entity estimates a stand-alone selling price of RM0.95 per point (totaling RM9,500) on the basis of the likelihood of redemption. GST is 6%. The profit margin is 50% of the selling price.

The entity allocates the transaction price (RM100,000) to the product and the points on a relative stand-alone selling price basis as follows:

	Selling price	%	Allocation
Product	100,000	91.3%	91,324
Points	9,500	8.7%	8,676
Total	<u>109,500</u>	<u>100.0%</u>	<u>100,000</u>

The summarised journal entry (accumulated for all customers) for that period would be as follows:

	RM	RM
Dr Cash (100,000 + 6,000)	106,000	
Cr Revenue from sales of goods		91,324
Cr Contract liabilities — credit awards		8,676
Cr Output GST payable (6% × 100,000)		6,000

- to recognise revenue and credit awards from sale of goods.

	RM	RM
Dr Cost of sales	45,662	
Cr Inventories		45,662

- to recognise cost of goods sold.

In a subsequent period, when the customers redeem the points, the contract liabilities will reverse to revenue on the first-in-first-out basis. If all the points are redeemed, the journal entry would be as follows:

	RM	RM
Dr Contract liabilities — credit awards	8,676	
Cr Revenue		8,676

- to recognise redemption of points as revenue.

	RM	RM
Dr Cost of sales	4,338	
Cr Inventories		4,338

- to recognise cost of goods sold.

In practice, if the credit awards or points for a product or a range of products are granted to customers on a continuous basis, it may be more convenient to monitor the credit awards or points that are still outstanding at the end of the period and account for the net change as a reversal of the contract liabilities during the period.

Example 14

Suppose in Example 13, the entity sells the same range of products for RM150,000 in the following period and grants customers 15,000 points. The allocation of the transaction price for the current period would be as follows:

Product	Selling price	%	Allocation
Product	150,000	91.3%	136,986
Points	14,250	8.7%	13,014
Total	<u>164,250</u>	<u>100.0%</u>	<u>150,000</u>

If 5,000 points awarded in the prior period were redeemed in the current period, the total points outstanding at the end of the current are 20,000 points. If the entity accounts for the redemption of points on the first-in-first out basis, the journal entries for the current period would be as follows:

	RM	RM
Dr Contract liabilities — credit awards	4,338	
Cr Revenue		4,338

- to recognise points redeemed as revenue.

	RM	RM
Dr Cost of sales	2,169	
Cr Inventories		2,169

- to recognise cost of goods sold.

CHAPTER 3

CONSTRUCTION CONTRACTS AND SERVICE CONCESSION ARRANGEMENTS

3.1 Introduction

This Chapter deals with the application aspects of IFRS 15 *Revenue from Contracts with Customers* on Construction Contracts. With effect from 1 January 2018, IFRS 15 supersedes IAS 11 *Construction Contracts*. IFRIC 12 *Service Concession Arrangements*, which is not superseded by IFRS 15 and remains effective as a stand-alone Standard, is discussed in this Chapter because all service concession arrangements would involve construction services. The tax treatments and the related tax effects of construction contracts are also discussed in this Chapter.

3.2 Accounting for Construction Contracts

3.2.1 What is a Construction Contract?

In the former IAS 11, a *construction contract* was defined as a contract specifically negotiated for the construction of an asset or a combination of assets that are closely interrelated or interdependent in terms of their design, technology and function, or their ultimate purpose or use.

Examples of construction contracts include contracts for the construction of highways, dams, buildings, bridges, pipeline, ships, and tunnels. The definition also encompasses:

- (a) contracts for the rendering of services which are directly related to the construction of the asset, such as services of project managers and architects; and
- (b) contracts for the destruction or restoration of assets, and the restoration of the environment following the demolition of assets.

3.2.2 Types of Construction Contracts

There are a number of ways in which contracts may be negotiated between a contractor and its customers. They may be grouped into: (a) fixed priced contracts, or (b) cost plus contracts. These can be defined as follows:

- (a) A *fixed price contract* is a construction contract in which the contractor agrees to a fixed contract price, or a fixed rate per unit of output, which in some cases are subject to cost escalation clauses; and
- (b) A *cost plus contract* is a construction contract in which the contractor is reimbursed for allowable or otherwise defined costs, plus a percentage of these costs or a fixed fee.

3.2.3 The Main Accounting Issue

The nature of most construction contracts is that the date at which the contract activity commences and the date when the activity is completed usually falls into different accounting periods. For example, a contract for the construction of a highway or a dam may take up to three years. Thus, the primary issue in accounting for construction contracts is the allocation of contract revenue and contract costs to the accounting periods in which construction work is performed.

3.2.4 Combining Construction Contracts

For internal control as well as for financial accounting purposes, construction contracts shall be individually identified and accounted for separately. IFRS 15 requires that the Standard shall be applied to each contract with a customer.

In some cases, the entity needs to account for two or more contracts together. An entity shall combine two or more contracts entered into at or near the same time with the same customer (or related parties of the customer) and account for the contracts as a single contract if:

- the contracts are negotiated as a package with a single commercial objective;
- the amount of consideration to be paid in one contract depends on the price or performance of the other contract; or
- the goods or services promised in the contracts (or some goods or services promised in each of the contracts) are a single performance obligation [IFRS 15.17].

These criteria for combining contracts are largely similar as those in the former IAS 11, except that the combining of contracts into a single contract applies only if the contracts are with the same customer (or related parties of the customer).

Example 1: Combining Contracts

A contractor enters into three contracts for the construction of three buildings with a customer and its related parties (entities under the same group). The three contracts shall be combined into one contract if they meet any of the three criteria above, eg when the three contracts are negotiated as a package with a single commercial objective. If any criterion is not met, each contract is accounted for separately.

Unlike the former IAS 11, which prescribed requirements for segmenting a contract into separate contracts when the specified criteria were met, IFRS 15 no longer prescribes segmentation of a contract. This is because IFRS 15 uses a performance obligation approach whereby if a contract has separate performance obligations, then each performance obligation shall be accounted for separately if it is distinct. Thus, the net effect is still the same as the segmentation requirement in the former IAS 11.

Example 2: Separate Performance Obligations in a Contract

A contractor enters into a contract with a university to construct various blocks of buildings, (a library, a hall, an administration block and a lecture theatre). Each of these buildings is distinct, ie the customer benefit from each performance obligation and the performance obligations are separately identifiable. In this case, each of the buildings shall be accounted for as a separate performance obligation, notwithstanding the fact that the contractor has signed one overall contract with the university.

Generally, IFRS 15 does not permit combination of contracts with different customers. However, it provides for a practical expedient in which an entity may apply the Standard to a portfolio of contracts (or performance obligations) with similar characteristics if the entity reasonably expects that the effects on the financial statements of applying the Standard to the portfolio would not differ materially from applying the Standard to the individual contracts (or performance obligations) within that portfolio. When accounting for a portfolio, an entity shall use estimates and assumptions that reflect the size and composition of the portfolio [IFRS 15.4].

Example 3: A Portfolio of Contracts

A contractor enters into a contract each with 10 individual bungalow lot owners, and the owners have together negotiated with the contractor for a package deal to develop their vacant lots. If the contractor views the individual contracts to be so closely interrelated with the effect of being a single project and with an overall profit margin, and that the construction can be performed concurrently or in a continuous sequence, then all the 10 contracts shall be combined and accounted for as a single portfolio of construction contracts, notwithstanding the fact that different contracts have been signed with different owners.

3.2.5 Contract Modifications

A contract modification is a change in the scope or price (or both) of a contract that is approved by the parties to the contract, for example, a change order, a variation or an amendment. It exists when the parties to a contract approve a modification that either creates new or changes existing enforceable rights and obligations of the parties to the contract. If a contract modification has not been approved by the parties to a contract, an entity shall continue to apply the IFRS to the existing contract until the contract modification is approved.

If a change in scope has been approved by the parties but the corresponding change in price has not yet been determined, an entity applies this IFRS to the modified contract when the entity has an expectation that the price of the modification will be approved. The entity needs to re-estimate the transaction price in such cases. If the contract modification results only in a change in the transaction price, an entity accounts for the modification as a change in the transaction price.

3.2.5.1 Modification that is a Separate Contract

An entity accounts for a contract modification as a separate contract if:

- the scope of the contract increases because of the addition of promised goods or services that are distinct; and
- the price of the contract increases by an amount of consideration that reflects the entity's stand-alone selling prices of the additional promised goods or services and any appropriate adjustments to those prices to reflect the circumstances of the particular contract.

Example 4: Modification that is a Separate Contract

An entity has a contract to construct an office building for a customer. A contract modification arises when the customer requests for an annexure block to be built next to the office building. The price of this annexure is negotiated separately. In this case, the contract modification is a separate contract because the scope of the contract increases due to the additional good that is distinct, and the price of the contract increases by an amount of consideration that reflects the entity's stand-alone selling price of the additional promised good.

3.2.5.2 Modification that is Not a Separate Contract

If a contract modification is not accounted as a separate contract, an entity needs to evaluate the remaining goods and services on the modified contract (ie the promised goods or services not yet transferred at the date of the contract modification) and account for the modified contract depending on whether the remaining goods and services are distinct from the goods or services already transferred to the customer.

Remaining Goods or Services are Distinct

The entity shall account for the contract modification as if it were a termination of the existing contract and the creation of a new contract if the remaining goods or services are distinct from the goods or services transferred on or before the date of the contract modification.

Example 5

A contractor has a contract with a customer to construct a four-storey shopping mall at a price of RM360 million. The construction of the mall is carried out in three stages: Stage 1 for construction of roads and parking areas, Stage 2 for construction of the mall foundation and common infrastructures; and Stage 3 for construction of the four-storey building. To date, 50% of the work is completed (Stage 1 and Stage 2 are completed) and the contractor has recognised cumulative revenue of RM180 million in profit or loss. The contract has an outstanding performance obligation with an amount of RM180 million not yet recognised as revenue.

A contract modification is approved by the parties for the construction of an additional storey to the shopping mall. The additional consideration for the modification is RM20 million. The contractor concludes that the modification is part of the existing contract.

In this case, the remaining goods and services (ie Stage 3 for the construction of the mall) promised in the contract together with the modification (which is an additional storey to the mall) are distinct from those already transferred to the customer because the customer can benefit from the additional storey and the additional storey is separately identifiable. Thus, the entity allocates total consideration of RM200 million to the contract for construction of a five-storey mall as if it were a new contract.

In a modification that is not a separate contract, if the remaining goods or services are not distinct, the modification forms a part of the existing contract in a single performance obligation that is partially satisfied at the date of the contract modification. If the remaining goods or services are not distinct, the modification has an effect on the transaction price, and based on the stage of completion, the entity adjusts for an increase in revenue at the date of the contract modification (ie the adjustment to revenue is made on a cumulative catch-up basis). In this case, the entity shall remeasure the transaction price of the contract and the estimated total costs to include the modification. The revenue and amortisation of costs are recognised on a cumulative catch-up basis.

Example 6

As at 31 December 2017, Entity M has an outstanding contract with a customer for the construction of a high-rise 10-storey office building and an underground carpark. The contract price is RM200,000,000 and the estimated contract cost is RM160,000,000. To date, the stage of completion is 40% and Entity M has recognised revenue of RM80,000,000 and amortisation of cost of RM64,000,000 in profit or loss.

In 20x8, a contract modification arises that requires Entity M to make some structural changes to the building in progress. The additional consideration for this modification is RM20,000,000. The additional cost to perform this modification is RM16,000,000. Entity M concludes that the modification is part of the existing contract and the remaining work together with modification is not distinct.

The contract price is revised to RM220,000,000 with the modification. Similarly, the estimated total cost is revised to RM176,000,000. On a cumulative catch-up basis, the revenue and cost adjustments would be as follows:

	Cumulative amount to date	Amount recognised previously	Adjustment
	RM'000	RM'000	RM'000
Revenue (40% × 220m)	88,000	80,000	8,000
Less: Costs (40% × 176m)	70,400	64,000	6,400
Profit	<u>17,600</u>	<u>16,000</u>	<u>1,600</u>

Entity M makes the following adjustments:

	RM'000	RM'000
Dr Amortisation of cost in profit or loss	6,400	
Dr Contract asset in financial position	1,600	
Cr Revenue in profit or loss		8,000

If the remaining goods and services together with the modification are a combination of both distinct and non-distinct goods and services, the entity would need to separate the two components and account for the distinct component as a new performance obligation.

Example 7

In the Example 6 above, assume that the modification also includes construction of an annexure block for carpark separate from the building and the price is RM25,000,000. In this case, the modification for the structural changes is not distinct but the annexure block is distinct and shall be accounted for as a separate performance obligation.

3.2.6 The Accounting Methods

The former IAS 11 required that when the outcome of a construction contract can be estimated reliably, the 'percentage of completion' method shall be applied for the recognition of revenue in profit or loss. For construction contracts where the outcome could not be estimated reliably, contract revenue would be recognised to the extent of recoverable contract costs recognised as an expense.

IFRS 15 requires that if a performance obligation in a contract is satisfied over time, revenue shall be recognised in profit or loss over time by reference to the stage of completion to date (ie the percentage of completion method). An entity shall assess when (or as) the customer obtains control of the asset under construction. A performance obligation is satisfied over time if at least one of the following three criteria is met:

- The customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs.
- The entity's performance creates or enhances an asset (eg work-in-progress) that the customer controls as the asset is created or enhanced.
- The entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date [IFRS 15.35].

(a) Customer simultaneously Receives and Consumes the Benefits

For a construction contract with a customer, such as a construction of a building, a factory, a road or a tunnel, it is rare for the customer to receive or consume the benefits provided by the entity's performance as the entity performs. The criterion (a) above generally would not be applicable for construction of physical assets with customers.

(b) Creates or Enhances an Asset that the Customer Controls

This criterion requires that the customer is able to direct or use the asset as it is being created or enhanced. Examples of construction contracts that would meet this criterion include:

- A contractor who undertakes construction of housing units of a property development project that belongs to a property developer. In this case, the customer (ie the property developer) would have control of the housing units, which could be sold to house buyers whilst the construction is in progress;

- (b) A contractor who performs renovation and upgrade work on a building, such as a hotel building, for the owner. In this case, the building owner would have control of the building (eg continue to use the hotel for operations) as it is being enhanced;
- (c) A contractor who undertakes planting and replanting of oil palms for a plantation owner. The plantation owner would have control of the biological asset as it is being planted or replanted; and
- (d) A contractor undertakes the resurfacing work on roads of a toll highway operator. In this case, the toll highway operator continues to direct the use of the roads as they are being enhanced.

(c) No Alternative Use and Enforceable Right for Payment

For construction contracts where either criterion (a) or (b) is not applicable or not met, an entity shall test the third criterion with the conditions of no alternative use and enforceable right for payment. In IFRS 15, a performance obligation is also considered satisfied over time if the entity has no alternative use to the asset under construction (other than its obligation to complete the construction) and the entity has an enforceable right to payments for performance completed to date.

The test of the “no alternative use” condition is whether the asset under construction can be redirected to another customer. For most construction contracts of physical assets, the no alternative use condition would be met, either because the contract contains substantive terms that preclude the entity from redirecting it for another use, or the asset is customised and highly specialised such that only the customer can use it. Also, the contract must not contain any cancellation clause that allows either party to cancel the contract under normal circumstances.

Enforceable right to payment means that it can be enforced at law if the customer defaults or fails to make any promised payments during the construction of the asset and on completion. Construction contracts of physical assets with customers typically provide for progress payments to be made by the customers over the duration of the construction work. These are enforceable rights specified in the contracts.

In some types of contracts with customers, the contractual terms may specify that a full payment is made only on completion and delivery of the asset to the customer. In such cases, the contractor would have no enforceable right for payment for performance completed to date until the construction work is completed in its entirety. In this case, the performance obligation is satisfied at a point in time, ie at the time of completion and delivery of the asset to the customer.

Thus, criterion (c) should be applied to test whether the performance obligations are satisfied over time or at a point in time. If the two conditions of “no alternative use” and “enforceable right for payment” are met, the percentage of completion method shall be applied. If either condition is not met, the completed contract method shall be applied. The accounting method in this new IFRS may differ from the method used under the former IAS 11 where the percentage of completion method must be applied when the prescribed criteria were met, but they did not include a condition of enforceable right for payment.

3.3 Measurement of Contract Revenue

3.3.1 Initial Amount Agreed

The measurement of the initial amount agreed in a construction contract is usually not a problem in practice as this is either the contract value agreed in the case of a fixed price contract, or the allowable costs incurred plus a fixed fee or percentage in the case of a cost-plus contract. However, the measurement of the transaction price in a contract may vary depending on the nature, terms, timing and any amount of variable consideration promised by a customer.

3.3.2 Incentives, Penalties and Performance Bonus

In a construction contract with a customer, the consideration receivable may vary due to incentives for early completion or penalties for late completion. Some contracts may include a performance bonus if the work performed meets a specified quality or standard of performance. IFRS 15 requires that an entity shall estimate an amount of variable consideration by using either the *expected value method* or the *most likely outcome method*, depending on which method the entity expects to better predict the amount of consideration to which it will be entitled. The entity shall exercise constraining estimate of any variable consideration so that it is highly probable significant reversal of revenue would not occur when the uncertainty about the variable consideration is subsequently resolved.

For example, if an entity is unsure whether a performance bonus is achievable, it may exclude the performance bonus in the initial measurement of the consideration receivable. Subsequently, it may revise the measurement to include the performance bonus if evidences indicate that it is highly probable the performance bonus would be achievable when the performance obligation is completed.

Example 8

On 1 January 20x5, Bina Bhd enters into a contract with a customer to construct a shopping mall. The consideration is RM250 million, but that amount will be reduced or increased depending on the timing of completion of the asset. Specifically, for each day after 31 March 20x7 that the construction of the mall is incomplete, the consideration is reduced by RM1,000,000. For each day before 31 March 20x7 that the construction of the mall is completed early, the consideration is increased by RM1,000,000.

Upon completion of the construction of the mall, a third party will inspect the asset and assign a quality rating based on metrics that are defined in the contract. If the asset receives a specified rating, the entity will be entitled to a performance bonus of RM5,000,000.

Required

In determining the transaction price, prepare a separate estimate for each element of the variable considerations to which the entity will be entitled using the appropriate estimation methods in IFRS 15.

Solution 8

Bina Bhd may decide to use the probability-weighted expected value method to estimate the variable consideration associated with the daily penalty or incentive (ie RM250 million, plus or minus RM1,000,000 per day). This is because it is the method that the entity expects to better predict the amount of consideration to which it will be entitled.

The entity may decide to use the most likely outcome method to estimate the variable consideration associated with the performance bonus. This is because there are only two possible outcomes (RM5,000,000 or RM0) and it is the method that the entity expects to better predict the amount of consideration to which it will be entitled.

Bina Bhd shall consider the requirements on constraining estimates of variable consideration to determine whether it should include some or all of its estimates of variable considerations in the transaction price. If it concludes that the performance bonus is possibly achievable but is uncertain, it may exclude this variable consideration in the initial measurement.

The transaction price is measured as follows:

Using *expected value method*:

Outcome	Amount RM'000	Probability of occurrence %	Expected value RM'000
On time	250,000	50%	125,000
30-day delay	220,000	30%	66,000
10-day early	260,000	20%	52,000
		<u>100%</u>	<u>243,000</u>

Outcome	Amount RM'000	Probability of occurrence %	Expected value RM'000
Performance bonus:			
Most likely outcome method			-
Transaction price			<u>243,000</u>

In the accounting for the construction contract in the early stages, Bina Bhd shall exclude the performance bonus in the initial measurement of the transaction price. When the contract is in the advanced stage and having regards to the stage of completion achieved, it may conclude that it is highly probable the performance quality will be met. Therefore, in this case, it shall include the performance bonus in its revised estimate of the transaction price and adjust the amount of revenue to be recognised on a cumulative catch-up basis. Similarly, for the incentive for early completion or penalty for late completion, Bina Bhd shall adjust the revenue to be recognised when the actual consideration receivable is ascertained, ie when it is completed and the incentive or penalty is known.

3.3.3 Significant Financing Component

Construction contracts with customers typically provide for progress billings that require the customers to pay the invoiced amounts within a stipulated credit period. There is usually no significant financing component in such billings unless the payments are deferred beyond the normal credit terms, such as payments after one year from the date of invoice. However, for some contracts with specified customers, such as contracts with governments for the construction of an asset, the payment terms may be deferred to more than one year. In this case, the consideration receivable shall be adjusted for the effects of the time value of money and the credit risk.

Example 9

Builder Bhd enters into a contract with a government to construct an office building for the government. The contract price is RM100,000,000. The terms of the payment are: (i) upfront payment of 10% of the contract price, and (ii) the balance payable after two years from date of completion and delivery of the building to the government. Builder Bhd has enforceable rights for payment only after the delivery of the completed building to the government. Hence, the performance obligation is satisfied at that point in time. The market interest rate for equivalent government bonds is 4% per annum.

The measurement of the transaction price is as follows:

Contract revenue = RM10,000,000 + RM90,000,000/(1.04) ²	= RM90,009,672
Interest income on receivable	= RM9,990,328
Total contracted price	= RM100,000,000

3.3.4 Retention Monies

In some contracts with customers, the terms provide for the customers to defer payment on a certain percentage of the contract price as contingencies for customers' protection of the work performed. These are known as retention monies and will be paid only after a certain period like two years after completion of the asset. If the retention monies are payable after more than a year from the completion date, the transaction price contains a financing component.

Example 10

On 1 January 20x6, Maju Bhd commences construction of a shopping complex for a customer. The contract price is RM200,000,000. The payment terms are: (i) upfront payment of RM20,000,000, (ii) RM80,000,000 less retention monies of RM10,000,000 on 31 December 20x6, and (iii) RM100,000,000 less retention monies of RM10,000,000 on completion date (31 December 20x7). The retention monies are payable on 31 December 20x9, subject to adjustments for claims and other disputes. Based on the customer's credit rating, the equivalent market interest rate is 6% per annum.

The consideration receivable is measured as follows:

Date	Total 1 January 20x6 RM'000	First payment 31 December 20x6 RM'000	Final payment 31 December 20x7 RM'000	Retention monies 31 December 20x9 RM'000
Contract price	200,000			
Upfront payment	<u>(20,000)</u>			
	180,000	80,000	100,000	
Retention monies		<u>(10,000)</u>	<u>(10,000)</u>	<u>20,000</u>
Cash receivable	20,000	70,000	90,000	<u>20,000</u>
PV of retention monies of RM10,000 discounted at 6% for three years		8,396		
PV of retention monies of RM10,000 discounted at 6% for two years		-	8,900	
Contract revenue	<u>20,000</u>	<u>78,396</u>	<u>98,900</u>	<u>179,296</u>
Interest income	-	1,604	1,100	2,704
Total contract price	<u>20,000</u>	<u>80,000</u>	<u>100,000</u>	<u>200,000</u>

IFRS 15 requires financing component to be included in the measurement of revenue only if it is significant. There is no prescribed threshold for what shall be considered as significant. An entity uses its judgement to make the decision. Financing components that are insignificant may be ignored.

3.3.5 Non-cash Consideration

In some contracts with customers, the consideration receivable may be in the form of a non-cash asset or other resources. In such cases, the transaction price shall be measured at the fair value of the non-cash asset or other resources receivable.

Example 11

A sub-contractor undertakes the electrical work in the construction of 100 units of houses in a residential housing project for a property developer. In return, the contractor is compensated with 10 units of the completed houses. If the selling price of the houses is RM500,000 per unit, the consideration receivable for the electrical work is measured at RM5,000,000, ie RM500,000 × 10 units.

Other form of non-cash consideration may be an intangible asset, such as a right to use an asset.

Example 12

A contractor undertakes the construction of a building for a land owner. The contractor bears all the costs of construction, and as compensation, is given the right to use the building for 10 years without paying rent. In this case, the contractor may measure the transaction price at the cost-plus margin method. If the cost of construction is RM100 million and the normal profit margin for this type of work is 20%, the transaction price is measured at RM120 million. Over time, when revenue is recognised in profit or loss, the journal entries would be as follows:

	RM'm	RM'm
Dr Intangible asset		
Cr Revenue in profit or loss	120	
- to recognise revenue and intangible asset over time.		120
Dr Contract cost as an expense in profit or loss	100	
Cr Contract asset — amortisation		100
- to recognise amortisation of contract asset over time.		

3.3.6 Other Consideration Receivable

Subsequent to the commencement of a contract with a customer, the consideration receivable may change due to variation orders, reimbursements and claims.

Variation Orders

The amount of contract revenue may increase or decrease from one period to the next due to a variation order, or an instruction of the customer for a change in the scope of the work to be performed under the contract, and this includes changes in the specifications or design of the asset and changes in the duration of the contract. A variation is included in the measurement of contract revenue only when the parties have approved the variation order and the amount of the revenue arising from the variation can be reliably measured. IFRS 15 requires that the variation order shall be accounted for as a contract modification (see the accounting for contract modification discussed earlier).

Reimbursements and Claims

Additional revenue may arise from claims for reimbursement for costs not included in the contract price. These include claims for costs due to delays caused by the customer, errors in specifications or design, disputed variations in contract work, and cost escalation clauses. The inclusion of additional revenue arising from a claim is subject to uncertainties as it depends on the outcome of negotiations between the contractor and its customer. Therefore, claims are only included in the measurement of contract revenue when negotiations have reached an advanced stage such that it is probable that the customer will accept the claim, and the amount that is probable to be accepted by the customer can be measured reliably.

3.4 Measurement of Contract Costs**Measurement is on the Cost Basis**

The accumulation of contract costs in a contract asset with a customer commences from the date of securing the contract to the final completion of the contract. IFRS 15 prescribes two types of contract costs that shall be included in the contract asset, as follows:

- Incremental costs of obtaining a contract; and
- Costs to fulfil a contract.

3.4.1 Incremental Costs of Obtaining a Contract

An entity shall recognise as an asset the incremental costs of obtaining a contract with a customer if the entity expects to recover those costs [IFRS 15.91]. The incremental costs of obtaining a contract are those costs that an entity incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained (for example, a sales commission, agent's fee, legal fees, etc). In construction contracts, fees or commissions paid to agents or third parties to obtain contracts with customers are included in the contract costs.

In the former IAS 11, costs that relate directly to a contract and which are incurred in securing the contract are included as part of the contract costs, if they can be separately identified and measured reliably, and it is probable that the contract will be obtained. Such costs may include tender fees paid and lobbying costs incurred. IFRS 15 requires that costs to obtain a contract that would have been incurred regardless of whether the contract was obtained shall be recognised as an expense when incurred, unless those costs are explicitly chargeable to the customer regardless of whether the contract is obtained [IFRS 15.93].

Example 13: Agent's Commission

Through an agent, Entity K secures a contract with a state government to construct a convention centre. The contract price is RM200 million and the agent's commission is 10% of the contract price. The agent incurs tender and lobbying cost of RM2 million, which is claimable from Entity K.

In this case, the agent's commission of RM20 million is included in the measurement of contract costs rather than a reduction in the contract price. The tender and lobbying cost shall be recognised as an expense when incurred.

3.4.2 Costs to Fulfil a Contract

IFRS 15 prescribes that an entity shall recognise an asset from the costs incurred to fulfil a contract only if those costs meet all of the following criteria:

- the costs relate directly to a contract or to an anticipated contract that the entity can specifically identify (for example, costs relating to services to be provided under renewal of an existing contract or costs of designing an asset to be transferred under a specific contract that has not yet been approved);
- the costs generate or enhance resources of the entity that will be used in satisfying (or in continuing to satisfy) performance obligations in the future; and
- the costs are expected to be recovered [IFRS 15.95].

Costs that relate directly to a contract (or a specific anticipated contract) include any of the following:

- direct labour (for example, salaries and wages of employees who provide the promised services directly to the customer);
- direct materials (for example, supplies used in providing the promised services to a customer);
- allocations of costs that relate directly to the contract or to contract activities (for example, costs of contract management and supervision, insurance and depreciation of tools and equipment used in fulfilling the contract);
- costs that are explicitly chargeable to the customer under the contract; and
- other costs that are incurred only because an entity entered into the contract (for example, payments to subcontractors) [IFRS 15.97].

Interest costs of borrowings shall also be included in the contract costs in accordance with IAS 23 *Borrowing Costs* if the entity uses borrowings to finance the construction of the asset.

In the former IAS 11, costs of rectification and guarantee work, including warranty costs, were included in contract costs. In IFRS 15, if the warranty comes with services (service-type warranties) and the warranty is negotiated and priced separately, it is a separate performance obligation for revenue accounting. This requires that part of the consideration receivable shall be allocated to the warranty and services component as a separate performance obligation.

For most construction contracts with customers, the warranty only covers for latent defects (assurance-type warranties) in the construction work. In this later case, the warranty is not a distinct performance obligation for revenue accounting. The estimated cost of warranty is recognised as a provision in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. In the *Basis for Conclusions* to IFRS 15, the IASB clarified that an entity should recognise a warranty liability and corresponding expense when it transfers the product to the customer and the liability should be measured in accordance with IAS 37. In IAS 37, the obligating event that gives rise to a provision is the contract with the customer. For assurance-type warranties in construction contracts where the performance obligation is satisfied over time, the warranty cost is included in contract costs over time and amortised as an expense over time with other accumulated costs so that on completion of the construction, the provision accumulated (ie the warranty liability) is equal to the “best estimate” of the expected warranty cost.

An entity shall recognise the following costs as expenses when incurred:

- general and administrative costs (unless those costs are explicitly chargeable to the customer under the contract);
- costs of wasted materials, labour or other resources to fulfil the contract that were not reflected in the price of the contract;
- costs that relate to satisfied performance obligations (or partially satisfied performance obligations) in the contract (ie costs that relate to past performance); and
- costs for which an entity cannot distinguish whether the costs relate to unsatisfied performance obligations or to satisfied performance obligations (or partially satisfied performance obligations) [IFRS 15.98].

3.5 Recognition of Contract Revenue and Expenses

IFRS 15 requires that when the performance obligation in a construction contract is satisfied over time, an entity shall recognise revenue in profit or loss by reference to the stage of completion, ie using the percentage of completion method.

3.5.1 Measuring the Stage of Completion

The stage of completion shall be measured by the method that reflects the work performed, which may be an “input” measure or an “output” measure. The Standard does not prescribe a preference for any particular method but mentions that the methods may include:

- contract costs incurred to date as a proportion of the estimated total contract costs (an input measure);
- surveys of work performed, for example, the value of work certified as a proportion of the total contract revenue (an output measure); or
- completion of a physical proportion of the contract work (an output measure).

As the measurement of stage of completion is an estimate of the work performed, a contractor may choose to apply different measurement methods to different types of construction contracts. However, for consistency, contracts of the same type or nature shall be measured using the same method. For example, a contractor may apply the costs incurred method to measure stage of completion for all its housing development contracts, but may apply the survey method to measure the stage of completion for all its engineering contracts.

Progress payments and advances received from customers generally do not reflect work performed and accordingly, shall not be used as a measure of the stage of completion. For example, some construction contracts may require the customers to pay upfront 10% of the contract value at the commencement of the contract. On the other hand, some other turnkey-type of construction contracts may have no payments until the entire contract is completed. Thus, payments received, whether upfront or at the end of the contract, bear no resemblance to the work performed to date in any reporting period.

If an entity applies the costs incurred method to measure the stage of completion, it shall exclude cost items that are included in contract costs but are not indicative of work performed to date. Examples of cost items that are not indicative of work performed may include equipment purchased from third parties that is part of the performance obligation and interest capitalised in the contract costs.

3.5.2 Accounting Procedures for the Percentage of Completion Method

The following journals summarise the accounting requirements under this method:

- As and when costs are assigned to a contract:

Dr Contract asset (contract in progress)
 Cr Cash/Payroll/Accumulated depreciation
 Cr Provision for warranty cost

- At the end of each reporting period, contract costs that relate to future activity, such as unused materials, are carried forward as a separate asset (inventories) as follows:

Dr Construction materials, supplies
 Cr Contract asset

- When upfront payment is received from customer:

Dr Cash account
 Cr Contract liability

- As and when customers are billed for progress payment:

Dr Trade receivable
 Cr Contract liability — progress billings account

- When cash is received from customers:

Dr Cash account
 Cr Trade receivable

- At the end of each period, contract revenue and contract expense (amortisation of contract asset) are recognised based on the stage of completion as follows:

Dr Contract liability account
 Cr Contract revenue in profit or loss

Dr Contract expense in profit or loss
 Cr Contract asset — amortisation

Example 14(a)

On 30 June 20x5, Entity M enters into a contract with a hotel owner to renovate and refurbish an entire 10-storey boutique hotel building. The contract includes replacing and installing new elevators. The contract price is RM20 million, with a clause that if the renovation and refurbishment work is completed by 31 December 20x6 (within 18 months), a performance bonus of RM2 million is payable.

Entity M concludes that in this service contract, the supply of labour, materials and the elevators to be installed are a single performance obligation in its promise to renovate and refurbish the entire hotel for the owner. It does not manufacture elevators and for the contract with the hotel owner, Entity M needs to acquire the elevators from a third party. The cost for the elevator is estimated at RM4 million and estimated total costs to fulfil the contract is RM16 million.

Based on the most likely outcome, Entity M determines that it is highly probable that the renovation and refurbishment contract will be completed by 31 December 20x6. To measure the stage of completion, Entity M uses the costs incurred basis (an input method).

As at 31 December 20x5, the following costs are incurred:

	RM'000
Direct labour and supervision	2,000
Direct materials	1,500
Allocated overheads	360
Provision for warranty cost	140
Cost of elevators purchased from 3 rd party	4,000
Total costs incurred to date	<u>8,000</u>
Further costs to complete the contract	8,000
Estimated total costs	<u>16,000</u>

For the six-month period ended 31 December 20x5, the Entity M bills the hotel owner for progress payment of RM8,400,000 in accordance with the payment terms of the agreement. The progress payments remain outstanding at the end of 20x5. GST is 6% on billings.

In this case, the transaction price is RM22 million and it includes the performance bonus because it is the most likely outcome. In measuring the progress at the end of 20x5, the entity excludes the cost of the elevators because that cost does not reflect the performance of the progress to date. The stage of completion is measured at $[8,000 - 4,000] / [16,000 - 4,000] = 33.33\%$.

The summarised journal entries for this contract for the year ended 31 December 20x5 are as follows:

	RM'000	RM'000
Dr Contract asset (in progress)	8,000	
Cr Cash/payables/depreciation allocated etc		7,860
Cr Provision for warranty cost		140
<i>- to accumulate contract costs as an asset [IFRS 15.95].</i>		
Dr Trade receivable (financial asset)	8,904	
Cr Contract liability — progress billings		8,400
Cr Output GST payable (6% × 8,400)		504
<i>- to recognise receivable when customer is billed [IFRS 15.105].</i>		
Dr Contract liability	7,333	
Cr Contract revenue in profit or loss (33.33% × 22,000)		7,333
<i>- to recognise revenue based on stage of completion [IFRS 15.31].</i>		

	RM'000	RM'000
Dr Contract expense in profit or loss	5,333	
Cr Contract asset — amortisation (33.33% × 16,000)		5,333
<i>- to recognise amortisation of contract asset in profit or loss [IFRS 15.99].</i>		

The relevant presentation in the financial statements for the year ended 31 December 20x5 is as follows:

	RM'000
<i>In the statement of comprehensive income:</i>	
Contract revenue	7,333
Contract expenses	<u>(5,333)</u>
Gross profit	<u>2,000</u>
<i>In the statement of financial position:</i>	
Trade receivable (financial asset)	8,904
Contract asset (See Note)	1,600
Provision for warranty	<u>(140)</u>
<i>Note: Contract Asset:</i>	
Balance at 1 January	-
Costs incurred in the year	8,000
Amortisation for the year	<u>(5,333)</u>
	2,667
Revenue recognised in the year for performance obligation partially satisfied in the year	7,333
Progress billings	<u>(8,400)</u>
Balance at 31 December*	<u>1,600</u>

Note*: The amount is equal to the balance in the contract asset in progress account of RM2,667,000 and the accrued revenue (ie billings in excess of revenue) in the contract liability account of RM1,067,000.

Note*: The movements in the contract asset account and contract liability account during the year 20x5 are as follows:

	Contract asset RM'000	Contract liability RM'000	Net total RM'000
Balance at 1 January	-	-	-
Costs incurred	8,000	-	8,000
Amortisation	(5,333)	-	(5,333)
Progress billings	-	(8,400)	(8,400)
Revenue recognised for the year	-	7,333	7,333
Balance at 31 December	<u>2,667</u>	<u>(1,067)</u>	<u>1,600</u>

Example 14(b)

Suppose in the Example 14(a) above, the renovation and refurbishment contract is completed by 31 December 20x6.

Costs incurred in 20x6 to complete the contract amount to RM8,500,000 and this includes a provision for warranty cost of RM160,000. The customer is billed for the balance of the contract price. Payments are received for the total progress billings except for 10% being held by the customer as retention monies.

The summarised journal entries for this contract for the year ended 31 December 20x6 are as follows:

	RM'000	RM'000
Dr Contract asset (in progress)	8,500	
Cr Cash/payables/depreciation allocated etc		8,340
Cr Provision for warranty cost		160
- to accumulate contract costs as an asset [IFRS 15.95].		
Dr Trade receivable (financial asset)	14,416	
Cr Contract liability — progress billings		13,600
Cr Output GST payable (6% × 13,600)		816
- to recognise receivable when customer is billed [IFRS 15.105].		
Dr Bank account (8,904 + 14,416 – 2,200)	21,120	
Cr Trade receivable		21,120
- to record payments received from customer.		
Dr Contract liability	14,667	
Cr Contract revenue in profit or loss (22,000 – 7,333)		14,667
- to recognise revenue based on stage of completion [IFRS 15.31].		
Dr Contract expense in profit or loss	11,667	
Cr Contract asset — amortisation (16,500 – 5,333)		11,667
- to recognise amortisation of contract asset in profit or loss [IFRS 15.99].		

The relevant presentation in the financial statements for the year ended 31 December 20x6 is as follows:

	RM'000
<i>In the statement of comprehensive income:</i>	
Contract revenue	14,667
Contract expenses	(11,167)
Gross profit	<u>3,500</u>
<i>In the statement of financial position:</i>	
Trade receivable (22,000 – 19,800)	2,200
Contract asset (See Note)	-
Provision for warranty cost	(300)
Note: Contract Asset:	
Balance at 1 January	1,600
Costs incurred in the year	8,500
Amortisation for the year	(11,167)
	<u>(1,067)</u>

	RM'000
Revenue recognised in the year that was included in contract liability balance at the beginning of the year	1,067
Revenue recognised in the year for performance obligation satisfied in the year	13,600
Progress billings for the year	(13,600)
Balance at 31 December*	<u>-</u>

Note*: The movements in the contract asset account and contract liability account during the year 20x6 are as follows:

	Contract asset RM'000	Contract liability RM'000	Net total RM'000
Balance at 1 January	2,667	(1,067)	1,600
Costs incurred	8,500	-	8,500
Amortisation	(11,167)	-	(11,167)
Progress billings	-	(13,600)	(13,600)
Revenue recognised for the year	-	14,667	14,667
Balance at 31 December	<u>-</u>	<u>-</u>	<u>-</u>

3.6 Estimate of Outcome of Contract

Reasonable Measures of Progress

IFRS 15 clarifies that an entity shall recognise revenue for a performance obligation satisfied over time only if the entity can reasonably measure its progress towards complete satisfaction of the performance obligation. An entity would not be able to reasonably measure its progress towards complete satisfaction of a performance obligation if it lacks reliable information that would be required to apply an appropriate method of measuring progress [IFRS 15.44]. Unlike the former IAS 11, IFRS 15 no longer prescribes the criteria for measurement reliability of construction contracts. Thus, a reasonable measure of progress requires judgement. An entity may refer to the guidance in the former IAS 11, which prescribed that for a fixed price contract, a reliable estimate of outcome requires all of the following conditions to be met:

- total contract revenue can be measured reliably;
- it is probable that the economic benefits associated with the contract will flow to the entity;
- both the contract costs to complete the contract and the stage of contract completion at the balance sheet date can be measured reliably; and
- the contract costs attributable to the contract can be clearly identified and measured reliably so that actual contract costs incurred can be compared with prior estimates.

In the case of a cost plus contract, the outcome of a construction contract can be estimated reliably when all the following conditions are satisfied:

- it is probable that the economic benefits associated with the contract will flow to the entity; and
- the contract costs attributable to the contract, whether or not specifically reimbursable, can be clearly identified and measured reliably.

In some circumstances (for example, in the early stages of a long-term contract), an entity may not be able to reasonably measure the outcome of a performance obligation, but the entity expects to recover the costs incurred in satisfying the performance obligation. In those circumstances, the entity shall recognise revenue only to the extent of the costs incurred until such time that it can reasonably measure the outcome of the performance obligation [IFRS 15.45].

There may be uncertainties that prevented the outcome of a construction contract being estimated reliably. These may include uncertainties in cost estimates in respect of work for which the contractor has no prior experience, recovery of contract costs may not be probable or in the early stages of longer-term construction contracts. Therefore, it is appropriate that in such circumstances, no profit shall be recognised. An entity may adopt, as a matter of an internal policy, that outcome of construction contracts would be deemed as uncertain when the stage of completion is below a certain percentage, such as 5%. Thus, with such an internal policy, no profit is recognised for any contract that is below the 5% stage of completion.

Example 15

A contractor has two contracts, W and Y, for which their outcome cannot be estimated reliably. Costs incurred for contract W were RM10,000,000 and the amount is fully recoverable. Costs incurred for contract Y were RM15,000,000 of which RM2,000,000 is not recoverable.

	Contract W RM'000	Contract Y RM'000	Total RM'000
Revenue recognised	10,000	13,000	23,000
Costs incurred in the period	(10,000)	(15,000)	(25,000)
Profit or (loss)	-	(2,000)	(2,000)

In a subsequent period, when the uncertainties that prevented the outcome of the contract being estimated reliably no longer exist, revenue and expenses associated with the construction contract shall be recognised based on the stage of completion method. In other words, once the uncertainties are resolved, the entity reverts back to its normal percentage of completion method. In this case, the recognition of revenue and cost in profit or loss is calculated on a cumulative catch-up basis.

Example 16

Lumuda Bhd undertakes a construction contract with a fixed price of RM100,000,000. In the prior year ended 31 December 20x4, there were significant uncertainties that prevented the outcome of the contract being estimated reliably. Accordingly, contract revenue and contract costs recognised in profit or loss in the prior year were RM20,000,000 each.

For the current financial year 20x5, the uncertainties are resolved. Additional contract costs incurred in the current year amount to RM25,000,000. Further costs to complete the contract are estimated at RM35,000,000. Progress billings at 31 December 20x5 amount to RM40,000,000. The company uses the costs incurred basis to measure the stage of completion.

Required

Compute the revenue and cost that should be recognised in the current year 20x5. Also show the movements in the carrying amount of the contract asset account.

Solution 16

Stage of completion = $45,000,000 / (45,000,000 + 35,000,000) = 56.25\%$

	RM'000
Revenue to date (56.25% × 100,000,000)	56,250
Less: Revenue recognised in the prior year	(20,000)
Revenue for the current year	36,250
Costs to date (56.25% × 80,000,000)	45,000

	20x5 RM'000	20x4 RM'000
Less: Costs recognised in the prior year		(20,000)
Costs as an amortisation expense for the current year		25,000
Gross profit in profit or loss		11,250
Contract asset:		
Balance at beginning of the year	20,000	-
Costs incurred in the year	25,000	20,000
Less: Amortisation of contract asset	(25,000)	(20,000)
Add: Revenue recognised in the year for performance obligation partially satisfied in the year	36,250	20,000
Less: Progress billings for the year	(40,000)	-
Balance at end of the year	16,250	20,000

3.7 Recognition of Expected Losses*When there is impairment*

IFRS 15 requires an entity to recognise an impairment loss in profit or loss to the extent that the carrying amount of a contract asset exceeds:

- the remaining amount of consideration that the entity expects to receive in exchange for the goods or services to which the asset relates; and
- less the costs that relate directly to providing those goods or services and that have not been recognised as expenses [IFRS 15.101].

For the item (b) above, the costs refer to further costs that are expected to be incurred in future periods to complete the contract.

Example 17: Performance Obligation Satisfied at a Point in Time

Entity M has an outstanding fixed price contract of RM1,000,000. To date, the costs incurred amount to RM600,000. The customer pays an initial deposit of RM100,000 and the balance of the contract price is payable only on completion and delivery of the asset. Entity M concludes that the performance obligation is satisfied only when the asset is delivered to the customer on completion. The carrying amount of the contract asset, net of payment received, is RM500,000.

At the end of the current year, Entity M estimates that further costs to complete the contract are RM600,000. The impairment loss is calculated as follows:

	RM'000
Remaining amount of consideration receivable (1,000 – 100)	900
Less: Further costs to complete the contract	(600)
Net recoverable amount	300
Carrying amount of contract asset before impairment	500
Impairment loss recognised in profit or loss	(200)

Note: The impairment loss is equal to the total loss foreseeable on the contract, ie price of RM1,000,000 less expected total cost of RM1,200,000.

CHAPTER 6

LESSEE ACCOUNTING

6.1 Introduction: Right-of-Use Model

In this Chapter, we explain the application of IFRS 16 to lessee accounting. We provide detailed discussions on the recognition and measurement requirements, including the accounting procedures, and the presentation and disclosure requirements of the Standard. Also, included in this Chapter is the tax treatment and the tax effect accounting for lessees.

6.2 Recognition Principles

The inception date of a lease is the earlier of the date of a lease agreement and the date of commitment by the parties to the principal terms and conditions of the lease. This is the date that shall be used to determine whether a contract is, or contains, a lease in accordance with the definition of a lease in IFRS 16. This date may be different from the commencement date of a lease, which is the date on which a lessor makes an underlying asset available for use by a lessee. The commencement date and the inception date may not coincide due to reasons, such as the leased asset is a building that is not yet fully completed for use, the leased asset is machine or an equipment that needs to be put into its proper working conditions for its intended use, or delay in the delivery of the leased asset to the lessee.

Example 1

On 30 September 20x8, Entity K enters into an agreement to rent a building from a property developer for a period of five years. The construction of the building is 90% completed and the developer's expected date of completion is 30 June 20x9. Entity K's financial year ends on 31 December.

In this case, the inception date is 30 September 20x8 whilst the commencement date is 30 June 20x9. For the year ended 31 December 20x8, Entity K shall not record the lease transaction. The contract represents a commitment which would be disclosed as a capital commitment in the notes to the financial statements. Entity K shall record the lease transaction for the initial recognition only on 30 June 20x9, ie at the commencement date when the building is completed by the developer and made available for use.

IFRS 16 requires that at the *commencement date*, a lessee shall recognise a right-of-use asset and a lease liability [IFRS 16.22]. For lessee accounting, all leases are treated in the same manner in that there is no more distinction of finance leases and operating leases. Thus, a lessee needs to capture all lease assets and liabilities in the statement of financial position.

6.3 Initial Measurement of the Right-of-Use Asset

IFRS 16 requires that the initial measurement of the right-of-use asset is at cost [IFRS 16.23]. The cost of the right-of-use asset shall comprise:

- the amount of the initial measurement of the lease liability;
- any lease payments made at or before the commencement date, less any *lease incentives* received;
- any *initial direct costs* incurred by the lessee; and

- (d) an estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease, unless those costs are incurred to produce inventories. The lessee incurs the obligation for those costs either at the commencement date or as a consequence of having used the underlying asset during a particular period [IFRS 16.24].

Example 2

On 1 November 20x7, Entity M enters into a contract to lease a building from its owners for five years with an option to extend the lease for another five years. On this date, Entity M pays an initial deposit of RM3,500,000, which is not refundable but can only be offset against the last rental payable. As an incentive, the owner pays RM500,000 to Entity M for entering into the lease. The yearly rental in the first five years is RM6,000,000 payable in arrears at the end of each year. The rental in the optional period will be at the then prevailing market rate at the end of Year 5. Entity M has no economic incentives to extend the lease and thus the lease term is determined at five years. The property has a current market value of RM200,000,000.

At the end of the lease, the contract requires that Entity M shall restore the structure of the building to its original condition if there are changes to the structure made by Entity M in its use of the building. The estimated cost of restoration is RM2,600,000. Legal fees and other incidental costs incurred by Entity M is RM800,000. Entity M's incremental borrowing cost is 6% per annum. The building is made available for use on 1 January 20x8.

The net present value (NPV) of the relevant cash flows (in RM'000) is determined as follows:

$$NPV = 3,500 - 500 + 800 + \sum_{t=1}^4 \frac{6,000}{(1.06)^t} + \frac{(6,000 - 3,500)}{(1.06)^5} + \frac{260}{(1.06)^5}$$

The applicable cash flows discounted at 6% are as follows:

Year	Lease payment RM'000	Restoration RM'000
0	3,500.00	
0	(500.00)	
0	3,000.00	
1	6,000.00	-
2	6,000.00	-
3	6,000.00	-
4	6,000.00	-
5	2,500.00	2,600.00
PV Yrs 1-5	22,658.78	1,942.87
Upfront	3,000.00	
Total PV	25,658.78	
Direct cost	800.00	
Restoration	1,942.87	
Right-of-Use	28,401.65	

The cost of the right-of-use asset comprises:	RM'000
Present value of lease liability	22,658.78
Payment made upfront less incentive	3,000.00
Initial direct cost	800.00
Provision for restoration	1,942.87
Right-of-Use Asset	<u>28,401.65</u>

On 1 November 20x7 (inception date), Entity M records the following payment and receipt:

	RM'000	RM'000
Dr Deposit paid — current asset	3,500.00	
Cr Cash		3,500.00
Dr Cash	500.00	
Cr Incentive received — current liability		500.00

On 1 January 20x8 (commencement date), Entity M records the following journal entry:

	RM'000	RM'000
Dr Right-of-use asset, at cost	28,401.65	
Dr Incentive received — derecognised	500.00	
Cr Lease liability		22,658.78
Cr Cash/Payable for direct cost		800.00
Cr Provision for restoration		1,942.87
Cr Deposit paid — derecognised		3,500.00

6.4 Initial Measurement of the Lease Liability

IFRS 16 requires that at the commencement date, a lessee shall measure the lease liability at the present value of the lease payments that are not paid at that date [IFRS 16.26].

The lease payments shall be discounted using the *interest rate implicit in the lease*, if that rate can be readily determined. If that rate cannot be readily determined, the lessee shall use its *incremental borrowing rate*. The requirements on the discount rate are the similar to those prescribed for finance leases in the current IAS 17.

The interest rate implicit in the lease is the rate of interest that causes the present value of (a) the lease payments and (b) the unguaranteed residual value to equal the sum of (i) the fair value of the underlying asset and (ii) any initial direct costs of the lessor. In the finance literature, this rate is often referred to as the internal rate of return (IRR). This formula is as follows:

$$FV + IDC = \sum_{t=0}^n \frac{LP_t}{(1+r)^t} + \frac{URV}{(1+r)^n}$$

Where: FV is the fair value of the underlying asset in the lease at time 0

IDC is the initial direct costs of the lessor

LP_t is the lease payment in period "t" over the lease term

URV is the unguaranteed residual value accruing to the lessor at the end of the lease term

"r" is the interest rate implicit in the lease

"n" is the lease term.

Example 3 on Calculation of Interest Rate Implicit in a Lease

For example, if an underlying asset in a five-year lease has a fair value of RM1,000,000. The yearly lease payment, payable at the end of each year, is RM200,000. The lessor expects to recover RM400,000 from the underlying asset at the end of the lease term. Initial direct costs of the lessor amount to RM10,000. The interest rate implicit in the lease is determined as follows:

$$1,000,000 + 10,000 = \sum_{t=1}^5 \frac{200,000}{(1+r)^t} + \frac{400,000}{(1+r)^5}$$

Where: "r" is the interest rate implicit in the lease. The rate is 9.89% which can be derived directly using an Excel program.

In practice, the interest rate implicit in a lease would be readily determinable if there are no or little initial direct costs of the lessor and no unguaranteed residual value accruing to the lessor, such as in a typical hire-purchase of a motor vehicle. If the interest rate implicit in the lease is not readily determinable (such as when there are variable lease payments or when the lessee is unable to determine either the fair value of the underlying asset or the amount the lessor expects to recover from the underlying asset at the end of the lease term), the lessee uses its incremental borrowing rate, which is the rate of interest it would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. This is basically the lessee's current cost of debts, which must include a risk-free rate for the time value of money and a premium for credit risk.

6.4.1 Hire-purchase Contracts

A hire-purchase is a method of buying an asset through making instalment payments over time. The origin of hire-purchase financing in Malaysia started in the 1960s with financing of motor vehicles provided by bankers and financial institutions to their customers. The *Hire Purchase Act 1967* governs the legal requirements of hire-purchase financing in Malaysia. The Act specifies the form and content of hire-purchase contracts, legal rights, duties and responsibilities of hirers and financiers, and other connected matters. The title of the motor vehicle will be in the name of the hirer but the financier will hold a charge on the title until all the instalments have been paid by the hirer. Ownership of the motor vehicle will only be passed to the hirer upon payment of the final instalment.

Typically, in a hire-purchase of a motor vehicle, a car manufacturer or dealer would sell a car to a customer and simultaneously arrange with a bank or a financial institution to finance the customer's purchase of the car. The contract with the financier would specify the instalments to be paid over time and the financier would price the instalment payments to include an interest component (ie the interest rate it charges the hirer).

As the beneficial ownership vest or will eventually vest with the hirer, for income tax purposes, the hirer claims capital allowances and interest expense rather than rentals paid as tax deductions in determining its taxable profit.

Example 4 on Hire-Purchase Contract

On 1 January 20x1, Entity K acquires a motor vehicle under a hire-purchase arrangement with a bank. The cash selling price of the motor vehicle is RM210,000. The agreement with the bank requires an initial payment of RM50,000 payable on 1 January 20x1, followed by four yearly instalments of RM50,000 each payable on 31 December. Title of the motor vehicle will be transferred to Entity K on payment of the last instalment on 31 December 20x4. Entity K incurs initial direct cost of RM2,000.

The interest rate implicit in the lease is determined as follows:

$$210,000 = 50,000 + \sum_{t=1}^4 \frac{50,000}{(1+r)^t}$$

As the first payment of RM50,000 is made upfront, the amount effectively borrowed from the bank is RM160,000. Thus, the above equation is revised to:

$$160,000 = \sum_{t=1}^4 \frac{50,000}{(1+r)^t}$$

The interest rate implicit in the lease can be determined using the IRR function in the Excel program as follows:

Date	Year	Cash Flows RM
01 January 20x1	0	(210,000)
01 January 20x1	0	50,000
01 January 20x1	0	(160,000)
31 December 20x1	1	50,000
31 December 20x2	2	50,000
31 December 20x3	3	50,000
31 December 20x4	4	50,000
	IRR =	9.56%

On initial recognition, Entity K records the following journal entries:

	RM	RM
Dr Right-of-use asset — Hire-purchase motor vehicle	212,000	
Cr Lease liability — hire-purchase		210,000
Cr Cash — initial direct cost		2,000
Dr Lease liability	50,000	
Cr Cash		50,000

As ownership is transferred at the end of the hire-purchase term, the right-of-use asset (ie the underlying motor) is depreciated over its useful life.

The lease liability is initially carried at RM160,000. Subsequently, it is measured at amortised cost with an effective interest rate of 9.56% per annum, as follows:

Lease liability				
Year	Opening liability	Interest expense at 9.56%	Instalment paid	Closing liability
	RM	RM	RM	RM
20x1	160,000	15,303	(50,000)	125,303
20x2	125,303	11,984	(50,000)	87,287
20x3	87,287	8,348	(50,000)	45,635
20x4	45,635	4,365	(50,000)	0
		40,000	(200,000)	

At the end of Year 1, Entity K records the following journal entry:

	RM	RM
Dr Interest expense	15,303	
Dr Lease liability	34,697	
Cr Cash		50,000

6.4.2 Conventional Leases of Equipment and Machinery

Banks and financial institutions that enter into leases of equipment and machinery with customers would typically provide financing to earn interest income over a specified lease period. Lease financing of equipment and machinery is part of their lending activities. A bank lessor would expect to recover its investment in the leased asset by pricing the lease payments to cover the cost of the leased asset and return on investment. There is usually no residual value accruing to lessor as the lease term would normally include a primary lease period that provides the return to the lessor, and a secondary lease period that extend indefinitely with a nominal rent (eg RM1). For a lessee in such arrangement, the accounting requirements are similar to a hire-purchase arrangement, but for tax purpose, the lessor claims capital allowances whilst the lessee claims rentals paid for tax deductions.

For other lessors in leases of equipment, vehicles and machinery, the arrangements with their customers may include financing the entire leased asset for a single customer or just a rent for the use of the leased asset. In the current IAS 17, a lessee would need to assess whether such arrangement is a finance lease or an operating lease using the indicators in the Standard, such as whether the lease term is a major part of the economic life of the underlying asset or the present value of the minimum lease payment is substantially all of the fair value of the underlying asset.

As IFRS 16 no longer makes a distinction between finance leases and operating leases, a lessee recognises a right-of-use asset and a corresponding lease liability, regardless of whether the arrangement for the use of the equipment or vehicle is financing in nature or just a rent to use the lease asset.

Example 5

At the beginning of Year 1, Entity H enters into an arrangement to lease an equipment from Entity J for a lease term of five years. The selling price of the equipment is RM150,000 and it has an economic life of ten years. The agreement requires Entity H to pay Entity J RM9,000 at the commencement date, followed by four yearly instalments of RM9,000 payable at the end of each year. Entity H's incremental borrowing cost at the commencement date is 6.4% per annum. Entity H incurs initial direct cost of RM1,000.

In the current IAS 17, this arrangement would have been classified as an operating lease (because the lease term is not a major part of the economic life of the equipment and the present value of the lease payments is not substantially all of the market price of the equipment). The lease asset and liability would be off-balance sheet.

Applying IFRS 16, Entity H, the lessee, measures the lease liability as follows:

$$PV = 9,000 + \sum_{t=1}^4 \frac{9,000}{(1.064)^t} = RM39,902$$

At the commencement date, Entity H records the following journal entries:

	RM	RM
Dr Right-of-use asset (39,902 + 1,000)	40,902	
Cr Lease liability		39,902
Cr Cash — initial direct cost		1,000
<i>- to recognise right-of-use asset and lease liability.</i>		
Dr Lease liability	9,000	
Cr Cash — upfront payment		9,000
<i>- to record payment made at commencement date.</i>		

6.4.3 Leases of Lands and Buildings

A freehold land typically has an indefinite economic life but a leasehold land has a finite useful life to the lessee. In the current IAS 17, if a land lease includes both land and building elements, a lessee needs to assess the classification of each element as a finance lease or an operating lease separately.

For a leasehold land that has a long lease period, its market value would be about the same as the market value of an equivalent freehold land. In such a case, it can be implied that the present value of the minimum lease payments is substantially equal to the fair value of the freehold land. Accordingly, the leasehold land is classified as a finance lease and capitalised as property, plant and equipment in accordance with IAS 16 *Property, Plant and Equipment*. However, if the lease period is short, the criterion of "substantially all of the fair value" would not be met. In this case, the leasehold land shall be classified as an operating lease. Any payment made upfront is treated as a prepayment.

Example 6

A freehold land has a current market value of RM10,000,000 and it generates a return of 8% per year from rental income. The market value is the equivalent of discounting the return of RM800,000 to perpetuity at 8%, as follows:

$$PV = \sum_{t=1}^{\infty} \frac{800,000}{(1.08)^t} = \frac{800,000}{.08} = RM10,000,000$$

A leasehold land has a lease period of 99 years and it generates the same return of RM800,000 per year. The present value of the minimum lease payments would be estimated as follows:

$$PV = \sum_{t=1}^{99} \frac{800,000}{(1.08)^t} = RM9,995,090$$

If the lease period is 50 years, the present value would be:

$$PV = \sum_{t=1}^{50} \frac{800,000}{(1.08)^t} = RM9,786,788$$

In both these cases, the present value of the minimum lease payments is substantially all of the fair value (more than 90%) of an equivalent freehold land. Thus, the leasehold land shall be classified as a finance lease and capitalised.

In contrast, if the leasehold period is 20 years, the present value would be estimated as follows:

$$PV = \sum_{t=1}^{20} \frac{800,000}{(1.08)^t} = \text{RM}7,854,518$$

In this case, the present value of the leasehold land is only 78.5% of the fair value of the equivalent land. Hence it should be classified as an operating lease under the current IAS 17. Any payment made upfront is treated as a prepayment.

When an entity applies IFRS 16, all leases of lands, whether for the long-term or the short-term, would be capitalised as right-of-use assets.

The minimum lease payments (including any lump sum upfront payments) are allocated to the land and building elements in proportion to their relative fair values of the leasehold interests in the land element and the building element of the lease at the inception of the lease. If the lease payments cannot be allocated reliably between these two elements, the entire lease is classified as a finance lease, unless it is clear that both elements are operating leases, in which case the entire lease is classified as an operating lease.

For a lease of land and building in which the amount that would initially be allocated to the land element is immaterial, the land and building may be treated as a single unit of account for the purpose of the lease classification and classified as a finance lease or an operating lease in accordance with the guidance in the Standard. In such a case, the economic life of the building is regarded as the economic life of the entire leased asset.

Example 7

Entity P purchases a leasehold property (land and high-rise building) at a price of RM100 million. The leasehold land has a lease period of 99 years. The economic life of the building is 50 years. In the sale and purchase agreement, the land portion has a value of RM5 million and the building value is RM95 million.

In this case, under the current IAS 17, both the land element and the building element are classified as finance leases and capitalised. The values indicated in the sale and purchase agreement are their respective market values and should be used as a basis for allocating the purchase price. The capitalised land would be amortised over the lease period of 99 years whilst the building would be depreciated over the estimated useful life of 50 years.

If the entity concludes that the amount allocated to the land element is immaterial, it may treat the entire leased property as a single unit of account and depreciate the leased property over 50 years (ie the economic life of the building).

Some leases of property have short lease periods but provide the lessee with a bargain purchase option. For example, an entity may enter into an arrangement to rent a building unit from a property developer for five years, with an option to purchase the building at the end of year 5 at a price that is expected to be sufficiently lower than the then prevailing market price. In this case, if the entity is reasonably certain at the inception of the lease that it will exercise the purchase option, it classifies the lease as a finance lease and capitalises the building unit as its property. However, the assessment of the "sufficiently lower" and "reasonably certain" criteria is subjective. There are no bright-line indicators for what should be considered as sufficiently lower and the reasonably certain criterion is behavior-driven that depends on management's intention. Thus, even if the purchase price is sufficiently lower than the prevailing market price, the entity may not be reasonably certain of purchase at the end of the lease period.

Example 8

Entity M enters into an arrangement to lease a property (land and building) from a property developer for five years paying a rental of RM1,000,000 per year at the end of each year. At the end of year 5, Entity M has an option to purchase the property at a price of RM10,000,000. The property has a current market value of RM11,800,000. Property prices are expected to increase in tandem with the property price index in the next five years. Entity M concludes that it is reasonably certain it will exercise the purchase option at the end of year 5. The current borrowing cost of Entity M is 6%.

Required

Explain and show the accounting requirements in the books of Entity M under the current IAS 17.

Solution 8

Entity M should classify the lease as a finance lease. The fair value of the property is RM11,800,000. The present value of the minimum lease payments (including the purchase option) is determined as follows:

$$PV = \sum_{t=1}^5 \frac{1,000,000}{(1.06)^t} + \frac{10,000,000}{(1.06)^5} = \text{RM}11,684,946$$

At the commencement of the lease, since the PV is lower than fair value, Entity M records the following journal:

	RM	RM
Dr Leasehold land and building	11,684,946	
Cr Lease liability		11,684,946

The leasehold land would be depreciated in accordance with the lease period of the land and for the building, over its useful life respectively. The liability would be carried at amortised cost method over the next five years with interest expense recognised at the effective interest rate of 6% as follows:

Year	Opening liability RM	Interest expense at 6% RM	Lease payment RM	Closing liability RM
1	11,684,946	701,097	(1,000,000)	11,386,042
2	11,386,042	683,163	(1,000,000)	11,069,205
3	11,069,205	664,152	(1,000,000)	10,733,357
4	10,733,357	644,001	(1,000,000)	10,377,358
5	10,377,358	622,642	(1,000,000)	10,000,000
		3,315,054	(5,000,000)	

At the end of Year 5, the lease liability would have a carrying amount that is equal to the option purchase price. On the exercise of the purchase option, Entity M records the following journal:

	RM	RM
Dr Lease liability	10,000,000	
Cr Cash		10,000,000

When a lessee applies IFRS 16 to leases of lands and buildings, there is no longer a distinction of finance leases and operating leases. Thus, all leases of land and buildings shall be recognised as right-of-use assets and lease liabilities regardless of whether the lease term is a long-term lease or a short-term lease. However, for lessor accounting (see Chapter 7), the classification of leases of lands and buildings as a finance lease or an operating lease would continue to be applicable with IFRS 16.

6.5 Determining the Lease Payments

IFRS 16 requires that at the commencement date, the lease payments included in the measurement of the lease liability shall comprise the following payments for the right to use the underlying asset during the lease term that are not paid at the commencement date:

- (a) *fixed payments* (including in-substance fixed payments), less any lease incentives receivable;
- (b) *variable lease payments* that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- (c) amounts expected to be payable by the lessee under *residual value guarantees*;
- (d) the exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
- (e) payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease [IFRS 16.27].

Variable payments are included only if they are linked to an inflation-related index or rate, such as the property price index or the KLIBOR rate. All other variables, such as those linked to revenue, or production output, from the use of the underlying asset are excluded.

Any unguaranteed residual value of the underlying asset accruing to the lessor at the end of the lease term is also excluded in the lessee's lease payments. The residual value is irrelevant to the lessee's estimate of the cash flows. However, for the lessor, the unguaranteed residual value is included in the measurement of its net investment in the lease (See Chapter 7 on *Lessor Accounting*).

6.5.1 In-substance Fixed Payments

IFRS 16 requires that lease payments include any in-substance fixed lease payments. In-substance fixed lease payments are payments that may, in form, contain variability but that, in substance, are unavoidable. The application of this new concept of in-substance fixed payment is likely to be subjective and hence requires judgement. For example, if variable lease payments increase at a fixed per cent per year, they are in-substance fixed payments as the amount in each future year is clearly determinable.

The Application Guidance of IFRS 16 clarifies that in-substance fixed lease payments exist, for example, if:

- (a) payments are structured as variable lease payments, but there is *no genuine variability* in those payments. Those payments contain variable clauses that do not have real economic substance. Examples of those types of payments include: (i) payments that must be made only if an asset is proven to be capable of operating during the lease, or only if an event occurs that has no genuine possibility of not occurring; or (ii) payments that are initially structured as variable lease payments linked to the use of the underlying asset but for which the variability will be resolved at some point after the commencement date so that the payments become fixed for the remainder of the lease term. Those payments become in-substance fixed payments when the variability is resolved.
- (b) there is more than one set of payments that a lessee could make, but only one of those sets of payments is realistic. In this case, an entity shall consider the *realistic set of payments* to be lease payments. For example, if variable lease payment in each subsequent year is the higher of a specified amount (a base amount) and a per cent of sales, the specified amount is in-substance fixed payment even if it is highly probable that a higher amount based on sales will occur.
- (c) there is more than one realistic set of payments that a lessee could make, but it must make at least one of those sets of payments. In this case, an entity shall consider the *set of payments that aggregates to the lowest amount* (on a discounted basis) to be lease payments. For example, the lease payments for a five-year lease term are the higher of: (i) a specified base amount plus 4% increase per year and (ii) a specified amount plus adjustment for change in the property price index in each year. Wherever realistic set of payments that has a lower amount shall be considered as in-substance fixed payments.

Example 9: Determining Lease Payments and Measurement

On 1 January 20x4, Entity A leases an aircraft from its owner for a non-cancellable lease term of five years and the yearly fixed lease payment is RM5 million, payable at the end of each year. Entity A has the option to extend the lease for another five years, and the yearly lease payment in the extend period is variable, being the higher of RM6 million and RM5 million plus an amount based the increase in the consumer price index between 1 January 20x4 and 31 December 20x8.

If the option to extend the lease term is not exercised, Entity A is required to pay a penalty of RM4 million for terminating the lease. The aircraft has a current market value of RM100 million. Entity A has guaranteed that the fair value of the aircraft at the end of Year 5 and Year 10 would be at least RM80 million and RM60 million respectively.

Based on the fact that Entity A would incur substantial costs to refurbish the interior of the aircraft and its business model of operating such assets, Entity A determines that the lease term is 10 years (it expects to exercise the option). It also expects to pay a residual value guarantee payment of RM10 million because its estimate of the fair value at the end of Year 10 is RM50 million. The initial direct costs incurred in the lease amount to RM2 million.

Entity A's current incremental borrowing cost is 6%.

The lease term in this case is 10 years because it is reasonably certain that Entity A would exercise the option to extend the lease (there is a significant economic incentive to extend the lease). The lease payments include the variable lease payments because the lessee is required to make a payment of at least RM6 million regardless of the CPI movement. Accordingly, the RM6 million payable is in-substance fixed payment. Also, the expected residual value guarantee payment of RM10 million is included in the lease payments. The present value of these payments (in RM'm) discounted at 6% is as follows:

$$NPV = \sum_{t=1}^5 \frac{5.00}{(1.06)^t} + \sum_{t=6}^{10} \frac{6.00}{(1.06)^t} + \frac{10.00}{(1.06)^{10}}$$

Discounting the Lease Payments:

Year	Lease Payments RM'm
1	5.00
2	5.00
3	5.00
4	5.00
5	5.00
6	6.00
7	6.00
8	6.00
9	6.00
10	16.00
NPV (6%, Yrs 1-10)	45.53

Recording the Transactions:

At the commencement date, Entity A records the following amounts:

	RM'm	RM'm
Dr Right-of-use asset (45.53 + 2)	47.53	
Cr Lease liability		45.53
Cr Cash — initial direct costs		2.00
- to record lease of an aircraft.		

6.5.2 Inflation-related Variable Payments

Variable lease payments are payments made by a lessee to a lessor for the right to use an underlying asset that vary because of changes in facts or circumstances occurring after the commencement date, other than the passage of time. In the original 2010 ED, the proposal was to include all expected variable lease payments in the measurement of leased assets and liabilities, including lease payments payable in the optional renewal periods on a “more likely than not” basis and variable lease payments linked to sales of the outputs produced from, or use of, the underlying leased asset.

For example, in a lease of electronic gaming machine, the contract may include a minimum fixed payment and variable payment based on a percentage of the machine collection (revenue generated from the machine) in each period. Similarly, in lease of a shopping mall to a mall operator, the contract may specify a minimum lease payment and a variable payment based on the revenue generated by the mall operator in each period. If the variable lease payments linked to sales or usages were to be included in the measurement, it would require a probability-weighted estimate of the likely outcomes of the revenues or usages of the leased asset. Many commentators disagreed with this proposal as they were concerned about cost and complexity in the application. In response to those comments, the IASB changed the proposal to exclude all variable lease payments in the measurement of right-of-use assets and lease liabilities unless those payments are in-substance fixed payments or are linked to an index or rate (inflation-related variable lease payments).

Variable lease payment linked to an index (such as a property price index) or a reference interest rate (such as the “KLIBOR”) is included in the initial measurement using the index or rate at the commencement date. For example, if the yearly lease payment in a property lease is based on the property price index, an entity determines all of the variable lease payments during the lease term using the *current* property price index at the commencement date. It does not include probable increase in the property price index in the future years even if that is more likely than not to occur. Similarly, if at the inception date of a lease contract, the lease payments are priced by reference to KLIBOR, the payments in each year will be variable, depending on the movements in the referenced KLIBOR. However, an entity determines all the variable lease payments during the lease term using the *current* KLIBOR at the commencement date. Consequently, when the property price index or the referenced KLIBOR changes in the future years, the entity needs to perform a remeasurement of the lease liability and right-of-use asset.

Example 10

On 1 January 20x1, Entity M leases a building from its owner for a lease term of eight years. The lease payment is RM10,000,000 at the commencement date, and the subsequent yearly lease payment is adjusted for any increase in the property price index in the year. As at the commencement date, the property price index has a 4% annual increase. Entity M’s incremental borrowing cost is 6.2% per annum. Initial direct cost incurred is RM500,000.

In this case, the variable lease payment linked to the property price index is included in the measurement. It is initially measured using the 4% property index prevailing at the commencement date. The net present value (NPV) of the lease payments (in RM’000), discounted at 6.2% per annum, is calculated as follows:

$$NPV = 10,000 + \sum_{t=1}^7 \frac{10,000(1.04)^t}{(1.062)^t} = 74,433.82$$

This is determined using a spreadsheet as follows:

Year	Lease payment RM’000
0	10,000.00
1	10,400.00
2	10,816.00
3	11,248.64
4	11,698.59
5	12,166.53
6	12,653.19
7	13,159.32
PV Yrs 1–7	64,433.82
Upfront	10,000.00
Total PV	74,433.82

At the commencement date, Entity M records the following journal entry:

	RM’000	RM’000
Dr Right-of-use asset (74,433.82 + 500)	74,933.82	
Cr Cash — upfront payment		10,000.00
Cr Lease liability		64,433.82
Cr Payable — initial direct cost		500.00

If there is no change to the property price index over the lease term of eight years, the carrying amount of the right-of-use asset and the lease liability at the end of each year would be as follows:

Year	Right-of-Use Asset			Lease Liability			
	Opening balance	Depreciation	Closing balance	Opening balance	Interest expense	Lease payment	Closing balance
	RM’000	RM’000	RM’000	RM’000	RM’000	RM’000	RM’000
1	74,993.82	(9,374.23)	65,619.59	64,433.82	3,994.90	(10,400.00)	58,028.72
2	65,619.59	(9,374.23)	56,245.37	58,028.72	3,597.78	(10,816.00)	50,810.50
3	56,245.37	(9,374.23)	46,871.14	50,810.50	3,150.25	(11,248.64)	42,712.11
4	46,871.14	(9,374.23)	37,496.91	42,712.11	2,648.15	(11,698.59)	33,661.67
5	37,496.91	(9,374.23)	28,122.68	33,661.67	2,087.02	(12,166.53)	23,582.17
6	28,122.68	(9,374.23)	18,748.46	23,582.17	1,462.09	(12,653.19)	12,391.07
7	18,748.46	(9,374.23)	9,374.23	12,391.07	768.25	(13,159.32)	-
8	9,374.23	(9,374.23)	-	-	-	-	-
Total		(74,993.82)			17,708.44	(82,142.26)	

The variable lease payments are initially measured at 4% increase using the property price index at the commencement date. In a subsequent year, if there is a change in the property price index and the variable lease payment is adjusted for the change, Entity M shall remeasure the lease liability by discounting the remaining lease payments that are adjusted for the change in the property price index and discounted at the original borrowing cost of 6.2%.

Example 11

Suppose in the Example 10 above, the property price index at the end of Year 3 has increased to 5%, and the lease payments from Year 4 would be increased by 5%. Entity M shall remeasure the lease liability at the end of Year 3 by discounting the revised lease payments (in RM'000) for Years 4–7 at the original interest rate of 6.2%, as follows:

$$NPV_{\text{at end of Year 3}} = \sum_{t=1}^4 \frac{11,248.64 (1.05)^t}{(1.062)^t}$$

Year	Lease payment RM'000
4	11,811.07
5	12,401.63
6	13,021.71
7	13,672.79
PV Yrs 4–7	43,737.81

The increase in the carrying amount of the lease liability in the remeasurement is RM1,025,700. Entity M makes the following adjustments:

	RM'000	RM'000
Dr Right-of-use asset	1,025.70	
Cr Lease liability		1,025.70

- to adjust carrying amounts lease asset and liability in a reassessment.

6.5.3 Other Variable Payments

Other variable payments in a lease arrangement may include payments based on the revenue generated from outputs produced from the underlying asset in the lease or based on usage of the underlying asset. The proposals in the EDs were to include all variable lease payments in the measurement using a probability-weighted estimate of those variable payments (similar to the measurement of variable considerations in IFRS 15 *Revenue from Contracts with Customers*). Many respondents to the EDs opined that these proposals are difficult and onerous to apply in practice. IFRS requires that all variable lease payments, other than those linked to an inflation-related index or rate, shall be excluded in the measurement. Thus, variable lease payments are not capitalised but recognised an operating expense when they are paid or incurred.

Although IFRS 16 simplifies the requirement in this regard, it can potentially lead to understatement of the right-of-use asset and lease liability in some types of lease arrangements. For example, if a lease arrangement contains all, or substantially all, variable payments linked to sales, there will be no or little asset and liability that is capitalised. This would nullify the aim of correcting off-balance assets and liabilities.

Example 12

Lessee leases a power plant from Lessor for a lease term of 20 years. The fair value of the power plant on commencement date is RM500 million. The lessor expects to recover RM100 million as unguaranteed residual value at the end of Year 20.

The lease payments comprise: (i) fixed payment of RM10 million per year, and (ii) variable payment based on the energy output produced from the power plant and supplied to Lessee.

The probability-weighted estimate of the variable payment linked to output produced is RM30 million per year.

Lessor considers the variable payment to estimate the rate to charge Lessee at 5.771% per annum. That rate is the expected rate of return from its investment in the power plant.

For Lessee, it measures the lease liability (in RM'm) as follows:

$$PV = \sum_{t=1}^{20} \frac{10m}{(1.05771)^t} = \text{RM}116.86m$$

The present value of the lease payment is 23.4% of the fair value of the power plant.

If the variable lease payment is included in the measurement, the liability is measured as follows:

$$PV = \sum_{t=1}^{20} \frac{40m}{(1.05771)^t} = \text{RM}467.44m$$

The present value of the lease payments is 93.5% of the fair value of the power plant.

The example shows that there is a significant difference in the measurement if variable lease payments linked to sales or outputs produced are included. In this case, it may be argued that the amount capitalised for the right-of-use asset and lease liability is understated. For the Lessor, the exclusion of the variable lease payments may convert an otherwise finance lease in substance to an operating lease in accordance with IFRS 16 (see *Lessor Accounting* in Chapter 7).

6.5 Subsequent Measurement of the Right-of-Use Asset**6.6.1 Depreciated Cost Model**

IFRS 16 uses a cost model for the subsequent measurement of right-of-use assets, with two exceptions [IFRS 16.29]. The right-of-use asset is treated in the same manner as a depreciable asset in IAS 16 *Property, Plant and Equipment*, which shall subsequently be measured at cost:

- less any accumulated depreciation and any accumulated impairment losses; and
- adjusted for any remeasurement of the lease liability [IFRS 16.30].

A lessee applies the depreciation requirements of IAS 16 for the right-of-use asset, which may be on the straight-line method or another method that better reflects the consumption of the right-of-use asset. Depreciation of the right-of-use asset shall be over the useful life if the lease transfers ownership by the end of the lease term or if the cost reflects that the lessee will exercise a purchase option. Otherwise, a lessee depreciates the right-of-use asset to the earlier of the end of the useful life and the end of the lease term. A lessee shall apply IAS 36 *Impairment of Assets* to determine whether the right-of-use asset is impaired and to account for any impairment loss identified.

6.6.2 Options for Other Measurement Models**6.6.2.1 Right-of-Use Asset is an Investment Property**

The identified asset in a property lease may be an investment property. The Standard requires that if a lessee applies the fair value model in IAS 40 *Investment Property* to its investment property, the lessee shall also apply that fair value model to right-of-use assets that meet the definition of investment property in IAS 40 [IFRS 16.34].

For example, if a lessee leases an entire shopping complex from the owner and sub-leases the shopping complex to other tenants to earn rental income, the lessee shall treat the right-of-use asset as an investment property. In IAS 40, the subsequent measurement of an investment is an accounting policy choice of the cost

model or the fair value model. Thus, if the lessee's choice is the fair value model, it must also measure the right-of-use investment property at fair value model in accordance with IAS 40. In this case, there will be no depreciation on the right-of-use investment property. Instead, the right-of-use investment property shall be measured at fair value at the end of each reporting period and changes in fair value shall be recognised in profit or loss.

Example 13 on Right-of-Use Investment Property

On 1 January 20x8, Entity R acquires a 99-year leasehold land of 10 hectares from a state government paying cash consideration of RM100 million at the commencement date. Legal and other incidental costs incurred amount to RM1 million paid in cash. Entity R uses two hectares of the land and the balance of eight hectares is rented out to a customer for a lease term of 20 years with yearly rental of RM5 million payable in arrears at the end of each year.

On the commencement date, Entity R records the right-of-use leasehold land as follows:

	RM'm	RM'm
Dr Right-of-use leased land	101	
Cr Cash		101

As eight hectares of the land are held for rental income, Entity R shall classify this portion of the land as investment property in accordance with IAS 40. If Entity R's policy is to measure investment property at fair value, it shall initially account for that portion at cost and subsequently measured at fair value through profit or loss. On a pro rata basis, Entity M shall transfer a rateable portion of the right-of-use asset to investment property, as follows:

	RM'm	RM'm
Dr Investment property — leased land (80% × 101)	80.8	
Cr Right-of-use asset		80.8

Subsequently, the investment property shall be measured at fair value. The fair value is determined using an observable market price of a similar leasehold land, if that price is available. Otherwise, Entity R may estimate the fair value using the discounted cash flow technique by reference to the expected rental income over the 99-year lease term.

For example, if at the end of Year 1, there is no observable market price for this leasehold land. The market rate of return of similar properties is 6% and the rental is expected to remain at RM5 million per year over the remaining 98 years of the lease, the present value of the rental receivable discounted at 6% for 98 years is RM83.06 million. The journal entries for the first year under the fair value model would be as follows:

	RM'm	RM'm
Dr Cash	5.00	
Cr Rental income in profit or loss		5.00
- to recognise rental income in profit or loss.		
Dr Investment property	2.26	
Cr Fair value gain in profit or loss (83.06 – 80.80)		2.26
- to recognise change in fair value of IP in profit or loss.		

6.6.2.2 Right-of-Use Asset is a Class of PPE

If the right-of-use asset relates to a class of property, plant and equipment to which the lessee applies the revaluation model in IAS 16 *Property, Plant and Equipment*, a lessee may elect to apply that revaluation model to all of the right-of-use assets that relate to that class of property, plant and equipment [IFRS 16.35]. For example, if a lessee uses the revaluation model for its freehold land under IAS 16, it may choose to apply the same measurement model for all of its right-of-use leasehold lands.

6.6.2.3 Leases of Land Classified as Inventory

IFRS 16 requires that the right-of-use asset measured on the cost model or the revaluation model shall be subject to systematic depreciation similar to a depreciable PPE in IAS 16. It does not address the requirements if a right-of-use asset is classified as inventory in accordance with IAS 2 *Inventories*. For example, a property developer may acquire a leasehold land for the purpose of property development. That land shall be classified as a long-term inventory (land held for development) in accordance with IAS 2. The issue is whether that leasehold land, being a right-of-use asset, shall be subjected to systematic depreciation in accordance with IFRS 16. In the current industry practice, leasehold lands held for property development are not depreciated but subject to impairment requirement. Until there is a definitive guidance on this issue, the industry practice is considered acceptable, notwithstanding the depreciation requirement of IFRS 16.

6.7 Subsequent Measurement of the Lease Liability

The lease liability is similar to a financial liability, such as a term loan with scheduled repayments, in IFRS 9. IFRS 16 requires that after the commencement date, a lessee shall measure the lease liability by:

- increasing the carrying amount to reflect interest on the lease liability;
- reducing the carrying amount to reflect the lease payments made; and
- remeasuring the carrying amount to reflect any reassessment or lease modifications, or to reflect revised in substance fixed lease payments [IFRS 16.36].

A lease liability is subsequently measured using a method similar to the amortised cost effective interest method (ie the amount that reflects the unwinding of the discount and the lease payments during the period so as to produce a constant periodic discount rate on the remaining balance of the liability). This is similar but not identical to the amortised cost effective interest method used for debt instruments in IFRS 9 because the rate used in the discounting may not be the implicit rate of interest in the lease.

After the commencement date, a lessee shall recognise in profit or loss, unless the costs are included in the carrying amount of another asset applying other applicable Standards (such as when interest is capitalised on a qualifying asset in accordance with IAS 23 *Borrowing Costs*), both:

- interest on the lease liability; and
- variable lease payments not included in the measurement of the lease liability in the period in which the event or condition that triggers those payments occurs [IFRS 16.38].

6.8 Recognition and Measurement of Expenses

For the statement of profit or loss and other comprehensive income, IFRS 16 requires that a lessee recognises expenses in profit or loss (unless the costs are included in the carrying amount of another asset in accordance with other applicable Standards). The expenses would include both the unwinding of the discount on the lease liability as interest and the depreciation of the right-of-use asset. Interest expense on the lease liability shall be treated as a finance cost in profit or loss, unless it is capitalised in a qualifying asset in accordance with IAS 23 *Borrowing Costs*. Variable lease payments linked to sales or uses of the lease asset not included in the initial measurement shall be recognised as an expense in profit or loss when incurred.

The unwinding of the discount is based on the effective interest rate method whilst the depreciation of right-of-use asset is generally on the straight-line method. For current operating leases, this IFRS will result in a faster recognition of expenses in the earlier periods of the lease term, compared to an even lease rental expense in the current IAS 17.

Example 14: Expenses in Profit or Loss

On 1 January 20x4, a lessee enters into a contract to lease an asset from a lessor for a lease term of five years, with yearly fixed lease payment of RM1,000,000, payable at the end of each year. In addition, the lessee needs to pay 5% of any sales of goods produced by the asset in excess of RM10 million. The rate the lessor charges the lessee cannot be determined readily. The lessee's incremental borrowing cost is 8%. In Year 1, the extra payment for the excess sales made is RM200,000.

The fixed lease payments over the five years are discounted at 8% as follows:

Year	Lease Payment RM'000
1	1,000
2	1,000
3	1,000
4	1,000
5	1,000
NPV (8%, Yrs 1-5)	3,993

The lessee records the right-of-use asset and the lease liability at RM3,993,000 at the commencement date.

The interest expense and the amortisation of the right-of-use asset would be as follows:

Lease liability					Lease Asset	Profit or Loss
Year	Opening liability	Interest at 8%	Lease payment	Closing liability	Depreciation	Total expense
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
1	3,993	319	(1,000)	3,312	799	1,118
2	3,312	265	(1,000)	2,577	799	1,064
3	2,577	206	(1,000)	1,783	799	1,005
4	1,783	143	(1,000)	926	798	941
5	926	74	(1,000)	(0)	798	872
		1,007	(5,000)		3,993	5,000

The variable lease payment of RM200,000 not included in the initial measurement is recognised as an expense in the year it is incurred.

6.9 Reassessment of the Lease Liability

The measurement of a lease liability is based on estimates of cash flows of variable lease payments linked to index or rate, lease term, options, penalties, residual value guarantees, etc. The actual cash flows may differ from the initial estimates. After the commencement date, lease payments may change due to a change in the lease term, the relevant factors that result in the lessee having incentive, or no longer reasonably certain, to exercise a purchase option or termination option, the amounts expected to be payable under residual value guarantees, or an index or rate used to determine the lease payments during the reporting period.

A lessee shall remeasure the lease liability to reflect changes to the lease payments. A lessee shall recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset. However, if the carrying amount of the right-of-use asset is reduced to zero and there is a further reduction in the measurement of the lease liability, a lessee shall recognise any remaining amount of the remeasurement in profit or loss [IFRS 16.39].

6.9.1 Changes in Lease Term and Option to Purchase

In a reassessment, a lessee shall remeasure the lease liability by discounting the revised lease payments using a revised discount rate, if either:

- there is a *change in the lease term*. A lessee shall determine the revised lease payments on the basis of the revised lease term; or
- there is a *change in the assessment of an option to purchase* the underlying asset, assessed considering the events and circumstances in the context of a purchase option. A lessee shall determine the revised lease payments to reflect the change in amounts payable under the purchase option.

A lessee shall determine the revised discount rate as the interest rate implicit in the lease for the remainder of the lease term, if that rate can be readily determined, or the lessee's incremental borrowing rate at the date of reassessment, if the interest rate implicit in the lease cannot be readily determined.

Example 15: Reassessment from changes in lease term and option to purchase

On 31 December 20x0, Entity P rents heavy equipment from a supplier. The lease payments consist of fixed payment of RM1,600,000 per year for five years with an option to purchase the equipment at the end of Year 5 at an exercise price of RM5,000,000. If the option to purchase is not exercised at the end of Year 5, Entity P has an option to extend the lease term for another five years, with fixed payment of RM1,400,000 per year. The fair value of the equipment on 31 December 20x0 is RM10,000,000 (the equivalent cash purchase price) and the value is expected to decline at 10% per year.

Based on its assessment, Entity P concludes that it is reasonably certain the purchase option will be exercised at the end of Year 5. In this case, the lease term is initially determined at five years with an option to purchase at the end of Year 5. The equipment has a remaining economic life of 10 years.

The cash flows and the implicit rate of interest in the lease are computed as follows:

Year	Cash Flows RM'000
0	(10,000.00)
1	1,600.00
2	1,600.00
3	1,600.00
4	1,600.00
5	6,600.00
IRR	7.37%

If there is no reassessment of the lease liability after initial recognition, the carrying amounts of the lease liability and the right-of-use asset and the related expenses over the lease term would be as follows

Lease Liability					Right-of-Use Asset	
Year	Opening liability	Interest at 7.37%	Lease payments	Closing Liability	Depreciation expense	Net carrying Amount
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
1	10,000.00	736.93	(1,600.00)	9,136.93	1,000.00	9,000.00
2	9,136.93	673.33	(1,600.00)	8,210.26	1,000.00	8,000.00
3	8,210.26	605.04	(1,600.00)	7,215.29	1,000.00	7,000.00
4	7,215.29	531.72	(1,600.00)	6,147.01	1,000.00	6,000.00
5	6,147.01	452.99	(6,600.00)	(0.00)	1,000.00	5,000.00
Total		3,000.00	(13,000.00)		5,000.00	