

The Theoretical Framework – Recognition of Financial Instruments

IFRS 9 *Financial Instruments* is a complex standard. IFRS 9 replaced IAS 39 *Financial Instruments: Recognition and Measurement*. It establishes accounting principles for recognising, measuring and disclosing information about financial assets and financial liabilities. The objective of this chapter is to summarise the key aspects of financial instrument recognition under IFRS 9.

IFRS 9 is remarkably wide in scope and interacts with several other standards (see Figure 1.1). When addressing hedging there are, in addition to IFRS 9, primarily three standards that have an impact on the way a hedge is structured: IAS 21 *The Effects of Changes in Foreign Exchange Rates*, IAS 32 *Financial Instruments: Disclosure and Presentation* and IFRS 13 *Fair Value Measurement*.

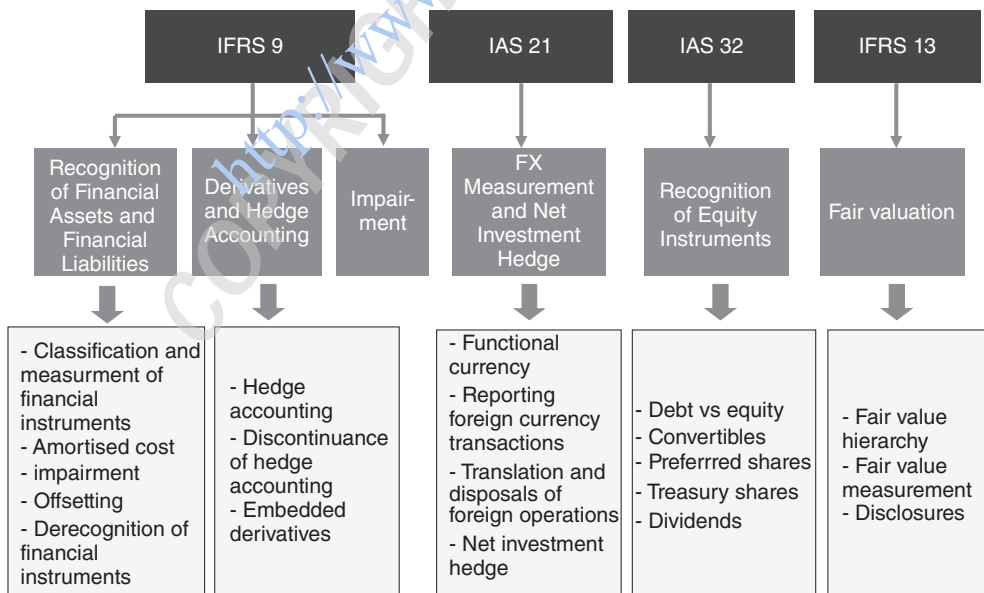


FIGURE 1.1 Relevant accounting standards for hedging.

Whilst the International Accounting Standards Board (IASB) is responsible for setting the IFRS standards, jurisdictions may incorporate their own version. For example, entities in the European Union must apply the version of IFRS 9 endorsed by the EU, which might differ from the IASB's IFRS 9 standard.

1.1 ACCOUNTING CATEGORIES FOR FINANCIAL ASSETS

Under IFRS 9, a financial instrument is any contract that gives rise to both a financial asset in one entity and a financial liability or equity instrument in another entity.

IFRS 9 does not cover the accounting treatment of some financial instruments – for example, own equity instruments, insurance contracts, leasing contracts, some financial guarantee contracts, weather derivatives, loans not settled in cash (or in any other financial instrument), interests in subsidiaries/associates/joint ventures, employee benefit plans, share-based payment transactions, contracts to buy/sell an acquiree in a business combination, contracts for contingent consideration in a business combination, and some commodity contracts are outside the scope of IFRS 9.

1.1.1 Financial Asset Categories

A financial asset is any asset that is cash, a contractual right to receive cash or some other financial asset, a contractual right to exchange financial instruments with another entity under conditions that are potentially favourable, or an equity instrument of another entity. Financial assets include derivatives with a fair value favourable to the entity.

IFRS 9 considers three categories of financial assets (see Figures 1.2 and 1.3):

- At **amortised cost**. This category consists of debt investments that meet both the **business model test** (i.e., the investment is managed to hold it in order to collect contractual cash flows) and the **contractual cash flow test** (the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding), and for which the fair value option (FVO) is not applied.
- At **fair value through other comprehensive income (FVOCI)**. This category consists of debt investments that meet both the business model test and the contractual cash flow test, but that are managed to sell them as well. It also consists of equity investments not held for trading for which the entity chooses not to classify them at fair value through profit or loss.
- At **fair value through profit or loss (FVTPL)**. This category consists of financial assets that are neither measured at amortised cost nor at FVOCI.

The classification of an instrument is determined on initial recognition. Reclassifications are made only upon a change in an entity's business model, and are expected to be very infrequent. No other reclassifications are permitted.

1.1.2 Financial Assets at Amortised Cost

A financial asset qualifies for amortised cost measurement only if it meets both of the following criteria:

- **Business model test**. The asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows.
- **Contractual cash flows test**. The contractual cash flows of the financial represent solely payments of principal and interest.

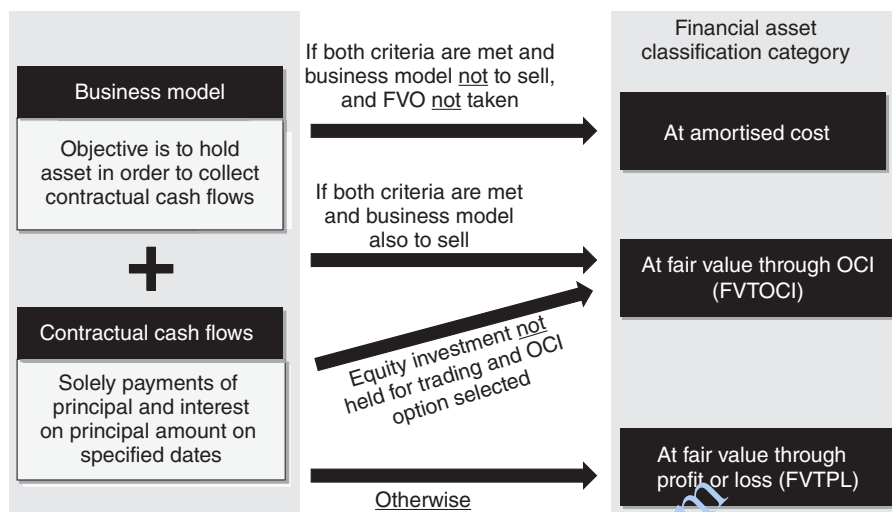


FIGURE 1.2 IFRS 9 financial assets classification categories – summary flowchart.

This is a mandatory classification, unless the fair value option is applied. Financial assets in the amortised cost category include non-callable debt (i.e. loans, bonds and most trade receivables), callable debt (provided that if it is called the holder would recover substantially all of debt’s carrying amount) and senior tranches of pass-through asset-backed securities.

If a financial asset does not meet any of the two conditions above it is measured at FVTPL. If both conditions are met but the sale of the financial asset is also integral to the business model, it is recognised at FVOCI.

Even if an asset is eligible for classification at amortised cost or at FVOCI, management also has the option – the FVO – to designate a financial asset at FVTPL if doing so reduces or eliminates a measurement or recognition inconsistency (commonly referred to as “accounting mismatch”).

Business Model Test If the entity’s objective is to hold the asset to collect the contractual cash flows, then it will meet the first criterion to qualify for amortised cost. The entity’s business model does not depend on management’s intentions for the individual asset, but rather on the basis of how an entity manages the portfolio of debt instruments. Examples of factors to consider when assessing the business model for a portfolio are:

- the way the assets are managed;
- how performance of the business is reported to the entity’s key management personnel;
- how management is compensated (whether the compensation is based on the fair value of the assets managed); and
- the historical frequency, timing and volume of sales in prior periods, the reasons for these sales (such as credit deterioration), and expectations about future sales activity.

IFRS 9 indicates that sales due to deterioration of the credit quality of the financial assets so that they no longer meet the entity’s documented investment policy would be consistent with the amortised cost business model. Sales that occur for other reasons may also be consistent with the amortised cost business model if they are infrequent (even if significant) or insignificant (even if frequent), or if the sales take place close to the maturity of the financial asset and the proceeds from the sale approximate the collection of the remaining contractual cash flows. For example, an entity could sell one financial asset that results in a large gain and

this would not necessarily fail the business model test due to its significant effect on profit or loss unless it was the entity's business model to sell financial assets to maximise returns.

If an entity is unsure of the business model for the debt investments, the default category would be at FVTPL.

Example: Liquidity portfolio

A bank holds financial assets in a portfolio to meet liquidity needs in a "stress case" scenario that is deemed to occur only infrequently. Sales are not expected except in a liquidity stress situation. The bank also monitors the fair value of the assets in the portfolio to ensure that the cash amount that would be realised if a sale is required would be sufficient to meet liquidity needs. In this case (i.e., where the "stress case" is deemed to be rare), the bank's business model is to hold the financial assets to collect contractual cash flows.

In contrast, if the bank holds financial assets in a portfolio to meet everyday liquidity needs and that involves recurring and significant sales activity, the objective is not to hold to collect the contractual cash flows. However, if the objective of the regulator is for the bank to demonstrate liquidity, the bank could consider other ways to demonstrate liquidity that would allow the portfolio to still qualify for amortised cost (e.g., entering into a repurchase agreement for the debt investments).

In addition, if the bank is required by the regulator to routinely sell significant volumes of financial assets in a portfolio to demonstrate the assets are liquid, the bank's business model is not to hold to collect contractual cash flows (the fact that this requirement is imposed by a third party is not relevant to the analysis).

Example: Financial assets backing insurance contracts

An insurer holds financial assets in a portfolio to fund insurance contract liabilities. The insurer uses the proceeds from the contractual cash flows to settle the insurance liabilities as they come due. There is also rebalancing of the portfolio on a regular basis as estimates of the cash flows to fund the insurance liabilities are not always predictable.

The objective of the insurer's business model is both to hold the financial assets to collect contractual cash flows to fund liabilities as they come due and to sell to maintain the desired profile in the asset portfolio. In this case, the insurer holds financial assets with a dual objective to fund insurance liabilities and maintain the desired profile of the asset portfolio. This portfolio would fail the business model test of holding to collect contractual cash flows but would likely qualify for FVOCI subject to the contractual cash flow test.

Contractual Cash Flows Test If the financial asset’s contractual terms give rise on specified dates to cash flows that are “solely payments of principal and interest on the principal amount outstanding” (SPPI), then it will meet the second criterion to qualify for amortised cost.

Interest is defined as “consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time”. The assessment as to whether cash flows meet this test is made in the currency of denomination of the financial asset.

Contractual Cash Flows Test – Modified Economic Relationship IFRS 9 also refers to the case of “modified economic relationships”. For example, a financial asset may contain leverage or an interest rate that is resettable, but the frequency of the reset does not match the tenor of the interest rate (an “interest rate mismatch”). In such cases, the entity is required to assess the modification to determine whether the contractual cash flows represent solely payments of principal and interest on the principal amount outstanding. To do this, an entity considers cash flows on a comparable or **benchmark** financial asset that does not contain the modification. The benchmark asset is a contract of the same credit quality and with the same contractual terms (including, when relevant, the same reset periods), except for the contractual term under evaluation (i.e., the underlying rate).

If the modification results in cash flows that are more than insignificantly different from the benchmark cash flows, or if the entity is unable to reach a conclusion, then the financial asset does not satisfy the SPPI test (see Figure 1.3).

In making this assessment the entity only considers reasonable possible scenarios rather than every possible scenario. If it is clear with little or no analysis whether the cash flows on the financial asset could or could not be more than insignificantly different from the benchmark cash flows, then an entity does not need to perform a detailed assessment.

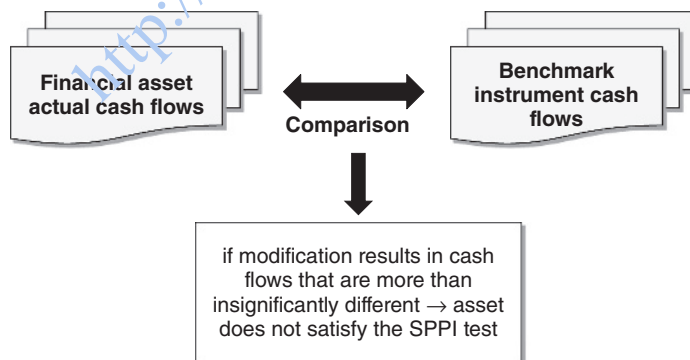


FIGURE 1.3 Contractual cash flows modification test.

Example: Constant maturity swap

A constant maturity bond with a 5-year term pays a variable rate that is reset semiannually linked to the 5-year swap rate. The benchmark cash flows are those of an otherwise identical bond but linked to the 6-month rate. At the time of initial recognition, the difference between the 6-month rate and the 5-year swap rate is insignificant. This bond does not meet the SPPI requirement because the interest payable in each period is disconnected from the term of the instrument (except at origination). In other words, the relationship between the 6-month rate and the 5-year swap rate could change over the life of the instrument so that the asset and the benchmark cash flows could be more than insignificantly different.

1.1.3 Financial Assets at Fair Value through Other Comprehensive Income

This category consists of debt investments that meet the contractual cash flows test, for which their business model is held to collect and for sale. This is a mandatory classification, unless the FVO is applied. This category is intended to acknowledge the practical reality that an entity may invest in debt instruments to capture yield but may also sell if, for example, the price is considered advantageous or it is necessary to periodically adjust or rebalance the entity's net risk, duration or liquidity position.

This category also consists of equity investments which are not held for trading. An entity can choose to classify non-trading equity investments in this category on an instrument-by-instrument basis. This is an irrevocable election.

1.1.4 Financial Assets at Fair Value through Profit or Loss

The FVTPL category is in effect the "residual category" for instruments that do not qualify for the amortised cost or FVOCI categories. The following financial assets would be included in the FVTPL category:

- financial assets held for trading;
- financial assets managed on a fair value basis to maximise cash flows through the sale of financial assets such that collecting cash flows is only incidental;
- financial assets managed, and whose performance is evaluated, on a fair value basis;
- financial assets where the collection of cash flows is not integral to achieving the business model objective (but only incidental to it); and
- financial assets that fail the SPPI test.

Derivatives are recognised at FVTPL unless they are a hedging instrument in cash flow hedge or net investment in foreign operation. Therefore, derivatives undesignated or being hedging instruments in fair value hedging relationships are classified at FVTPL. Recognition of derivatives is covered in detail in Chapter 2.

1.1.5 Financial Assets – Initial and Subsequent Recognition

An entity recognises a financial asset when and only when the entity becomes a party to the contractual provisions of a financial instrument. The initial measurement of the financial asset

is its fair value, which normally is the consideration given, including directly related transaction costs.

Debt Instruments at Amortised Cost Debt instruments classified at amortised cost are subsequently recognised at amortised cost less impairment in the statement of financial position. Interest income and impairment are recognised in profit or loss. Interest income is recognised using the effective interest rate method. Impairment charges can be reversed through profit or loss. Foreign exchange gains and losses are recognised in profit or loss.

Debt Instruments at FVOCI A debt instrument classified at FVOCI is presented in the statement of financial position at fair value. The entity also keeps an amortised cost calculation (i.e., an effective interest rate) to recognise interest income in profit or loss.

Interest income and impairment are recognised in profit or loss, using the same methodology as for amortised cost. Interest income is recognised using the effective interest rate method. Impairment charges can be reversed through profit or loss. Likewise, foreign exchange gains and losses are recognised in profit or loss as if the instrument were carried at amortised cost. The difference between amortised cost (in the currency of denomination) and fair value (in the currency of denomination) is recognised in OCI and recycled when the instrument is sold.

Equity Instruments at FVOCI Gains and losses on equity investments in this category are recognised in OCI with no recycling of gains and losses into profit or loss. If an equity investment is so designated, then dividend income generally is recognised in profit or loss. No impairment is recognised.

Instruments at FVTPL Gains and losses on instruments in this category are recognised in profit or loss. No impairment is recognised.

Summary The table below gives an overview of the accounting treatment of each category of financial assets:

Asset category	Measurement	Fair value changes
At amortised cost	Initial recognition at fair value Subsequent recognition at amortised cost less impairment. Any premium or discount is amortised to profit or loss	Not relevant unless impaired Interest income, impairment and foreign exchange gains/losses recognised in profit or loss. Impairment can be reversed through profit or loss
At FVTPL	Fair value	Changes in fair value recorded in profit or loss No impairment recorded
At FVOCI	Fair value	Changes in fair value recorded in OCI For debt instruments: interest revenue, credit impairment and foreign exchange gains or losses recognised in profit or loss. On derecognition any cumulative gains and losses in OCI reclassified to profit or loss For equity investments: no impairment is recorded. Dividends recorded in profit or loss

Leveraged Financial Assets In order to meet the contractual cash flows criterion, there should be no leverage of the contractual cash flows. Leverage increases the variability of the contractual cash flows, with the result that they do not have the economic characteristics of interest.

Non-recourse Financial Assets IFRS 9 contains specific guidance on classifying non-recourse (or limited recourse) financial assets. These assets represent an investment in which the investor's claims are limited to specified assets, which may be financial or non-financial assets. IFRS 9 states that the fact that a financial asset is non-recourse does not mean in itself that the SPPI criterion is not met.

- If, for instance, the underlying assets meet the SPPI criterion, it may be possible to conclude that the non-recourse asset also meets the criterion.
- If, for example, the non-recourse asset is a vehicle whose only asset is an equity investment, it will not meet the SPPI criterion.

Contractually Linked Instruments – Tranches of Securitisations IFRS 9 contains specific guidance on classifying contractually linked instruments that create concentrations of credit risk (e.g., securitisation tranches). The right to payments on more junior tranches depends on the issuer's generation of sufficient cash flows to pay more senior tranches. The standard requires a look-through approach to determine whether the SPPI criterion is met. Otherwise, the tranche would be recognised at fair value.

A tranche meets the SPPI criterion only if all the following conditions are met:

Principal and interest test. The contractual terms of the tranche itself have only SPPI characteristics.

Look-through test. The underlying pool of financial instruments:

contains one or more instruments that meet the SPPI criterion;

also may contain instruments that:

- reduce the cash flow variability of the instruments under (i) and the combined cash flows meet the SPPI criterion (e.g., interest rate caps and floors, credit protection), or
- align the cash flows of the tranches with the cash flows of the instruments under (i) arising as a result of differences in whether interest rates are fixed or floating or the currency or timing of cash flows.

Credit risk test. The exposure to credit risk inherent in the tranche is equal to, or lower than, the exposure to credit risk of the underlying pool of financial instruments. The standard states as an example that this condition would be met if, in all circumstances in which the underlying pool of instruments loses 50% as a result of credit losses, the tranche would lose 50% or less.

The look-through approach is carried through to the underlying pool of instruments that create, rather than pass through, the cash flows. For example, if an entity invests in a tranching note issued by SPE 2 whose only asset is an investment in another tranching note issued by SPE 1, the entity looks through to the assets of SPE 1 in performing the assessment.

Example: Tranched issuance

Suppose that a special-purpose entity (SPE) has bought mortgage assets with a notional amount of USD 800 million and issued three tranched notes (A, B and C) that are contractually linked. All assets in the pool meet the SPPI criterion. The underlying mortgage assets pay fixed rates of interest on a monthly basis. The vehicle holds an interest rate swap that swaps the underlying mortgages monthly fixed interest for 3-month Libor. The weighted average credit spread of the assets in the mortgage pool is 400 basis points.

- Tranche A pays a quarterly interest of 3-month Libor plus 50 basis points on a principal of USD 300 million.
- Tranche B pays a quarterly interest of 3-month Libor plus 400 basis points on a principal of USD 200 million.
- Tranche C pays a quarterly interest of 3-month Libor plus 500 basis points on a principal of USD 100 million.

If the underlying pool of instruments were to lose 50% as a result of credit losses, a loss of USD 400 million would arise ($= 800 \text{ million} \times 50\%$), and the effect on the tranches would be as follows:

- The overcollateralisation would absorb the first USD 200 million losses.
- Tranche C would lose USD 100 million, representing 100% of its total principal.
- Tranche B would lose USD 100 million, representing 50% of its total principal.
- Tranche A would not experience any losses.

In addition to the tranches and the asset pool, the vehicle contains another financial instrument, an interest rate swap, but it only aligns the cash flows of the underlying pool with those of the tranches, and consequently it does not affect the tranches' SPPI eligibility. Whilst all the three tranches meet two of the SPPI conditions (i.e., the underlying mortgage pool meets the SPPI criterion and the tranches pay cash flows that only represent principal and interest), only tranches A and B are eligible for amortised cost recognition, subject to meeting the business model criterion, as a 50% loss in the underlying asset pool would not cause these tranches to experience losses exceeding 50% of their principal amounts. As a result, the larger the level of overcollateralisation (i.e., the excess of the underlying pool size relative to the size of the issued tranches), the higher the likelihood of meeting the credit risk test.

Item	Look-through test	Principal and interest test	Credit risk test	Amortised cost eligibility (*)
Tranche A	Pass	Pass	Pass	Yes
Tranche B	Pass	Pass	Pass	Yes
Tranche C	Pass	Pass	Fail	No

(*) Subject to the business model criterion being met

When the tranche held by the investor is prepayable contingent upon a prepayment occurring in the pool of underlying assets, it may meet SPPI even if the following features exist in the structure (assuming the three primary conditions for the tranche as a whole are met):

- The tranche is prepayable contingent on repayment occurring in the underlying pool. Because SPPI must be met for the underlying pool, it is assumed the underlying prepayment risk on the pool is consistent with SPPI.
- Even if the collateral underlying the pool does not meet the qualifying conditions for amortised cost, the underlying collateral can be disregarded unless the instrument was acquired with the intention of controlling the collateral.

1.1.6 Reclassifications

IFRS 9 requires an entity to reclassify financial assets if and only if the objective of the entity's business model for managing those assets changes. Such changes are expected to be infrequent, and need to be determined by the entity's senior management as a result of internal or external modifications. These modifications have to be significant to the entity's operations and demonstrable to external parties. Reclassification is applied prospectively from the start of the first reporting period following the change in business model.

Both the amortised cost and FVOCI categories require the effective interest rate to be determined at initial recognition. Therefore, when reclassifying a financial asset between the amortised cost and the FVOCI categories, the recognition of interest income would not change and the entity would continue to use the effective interest rate determined at initial recognition. A financial asset reclassified out of the FVOCI category to the amortised cost category would be measured at amortised cost as if it had always been so classified. This will be effected by transferring the cumulative gain or loss previously recognised in OCI out of equity, with an offsetting entry against the fair value carrying amount at the reclassification date.

However, for financial assets at FVTPL, an entity is not required to separately recognise interest income. When reclassifying a financial asset out of the FVTPL category, the effective interest rate would be determined based on the fair value carrying amount at the reclassification date.

Asset category	Reclassification to		
	Amortised cost	FVOCI	FVTPL
From: At amortised cost	N/A	Remeasure at fair value with any difference in OCI	New carrying amount is the fair value on reclassification date
		The effective interest rate determined at initial recognition remains unchanged	Any difference between amortised cost and fair value is recognised in profit or loss
From: At FVOCI	Accumulated OCI recycled out of equity, with offsetting entry against fair value carrying amount	N/A	Accumulated OCI amount recycled to profit or loss

Asset category	Reclassification to		
	Amortised cost	FVOCI	FVTPL
	Adjusted carrying amount is existing amortised cost		Asset continues to be measured at fair value
	The effective interest rate determined at initial recognition remains unchanged		Subsequent changes in fair value recognised in profit or loss
From: At FVTPL	New amortised cost is the fair value on reclassification date	Asset continues to be measured at fair value	N/A
	The effective interest rate is calculated	Subsequent changes in fair value recognised in OCI	
		The effective interest rate is calculated	

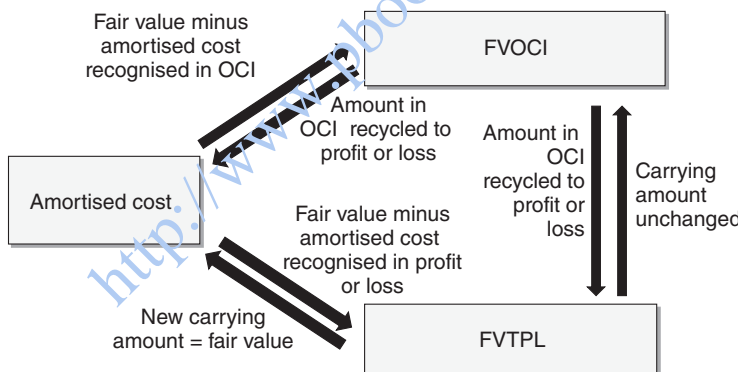


FIGURE 1.4 Reclassification of financial assets.

1.2 THE AMORTISED COST CALCULATION: EFFECTIVE INTEREST RATE

It was mentioned earlier that some assets and liabilities are measured at amortised cost. The amortisation is calculated using the **effective interest rate (EIR)**. This rate is applied to the carrying amount at each reporting date to determine the interest expense for the period. The EIR is the rate that exactly discounts the stream of principal and interest cash flows to the initial net outlay (in the case of assets) or proceeds (in the case of a liability). In this way, the contractual interest expense in each period is adjusted to amortise any premium, discount or transaction costs over the life of the instrument.

The carrying amount of an instrument accounted for at amortised cost is computed as:

- the amount to be repaid at maturity (usually the principal amount); plus
- any unamortised original premium, net of transaction costs; or less
- any unamortised original discount including transaction costs; less
- principal repayments; less
- any reduction for impairment or uncollectability.

Transaction costs include fees, commissions and taxes paid to other parties. Transaction costs do not include internal administrative costs.

1.2.1 Example of Effective Interest Rate Calculation – Fixed Rate Bond

Suppose that an entity issues a bond with the following terms:

Nominal amount:	EUR 1,250
Maturity:	5 years
Issue proceeds:	EUR 1,250
Coupons:	First year: 6% (75)
	Second year: 8% (100)
	Third year: 10% (125)
	Fourth year: 12% (150)
	Fifth year: 16% (200)

$$1,250 = \frac{75}{1 + EIR} + \frac{100}{(1 + EIR)^2} + \frac{125}{(1 + EIR)^3} + \frac{150}{(1 + EIR)^4} + \frac{1,250 + 200}{(1 + EIR)^5}$$

The EIR is computed as the rate that exactly discounts estimated future cash payments through the expected life of the financial instrument:

Solving this equation, we get EIR = 9.96%. The amortised cost of the liability at each accounting date is computed as follows:

Year	Amortised cost at beginning of year (a)	Interest (b) = (a) × 9.96%	Cash flow (c)	Amortised cost at end of year (d) = (a) + (b) – (c)
1	1,250	125	75	1,300
2	1,300	129	100	1,329
3	1,329	132	125	1,336
4	1,336	133	150	1,319
5	1,319	131	200	1,250

1.2.2 Effective Interest Rate Calculation – Floating Rate Debt

IFRS 9 does not specify how the EIR is calculated for floating rate debt instruments. The EIR of a floating rate instrument changes as a result of periodic re-estimation of determinable cash flows to reflect movements in market interest rates. Two approaches can be used to calculate the EIR in a floating rate debt instrument:

- calculation based on the actual benchmark rate that was set for the relevant period; or
- calculation using the method employed for fixed rate debt (i.e., estimating the EIR at the beginning of each interest period taking into account the expected interest rates in each future interest period).

When the floating rate instrument is recognised at an amount equal to the principal receivable or payable on maturity, this periodic re-estimation does not have a significant effect on its carrying amount. Therefore, for practical reasons the first approach is used, and in such cases the carrying amount is usually not adjusted at each repricing date, because the impact is generally insignificant. According to this method, the interest income for the period is calculated as follows:

$$\text{Interest income} = \text{Period interest rate} \times \text{Principal amount} + \text{Discount amortisation} + \text{Transaction costs}$$

Similarly, for floating rate debt liabilities, the following method is used to calculate interest expense for the period:

$$\text{Interest expense} = \text{Period interest rate} \times \text{Principal amount} + \text{Discount amortisation} + \text{Transaction costs}$$

The treatment of an acquisition discount or premium on a floating rate instrument depends on the reason for that discount or premium. For example:

- When the discount (or premium) reflects changes in market rates since the last repricing date, it is amortised to the next repricing date.
- When the discount (or premium) results from a change in the credit spread over the floating rate as a result of a change in credit risk, it is amortised over the expected life of the instrument.

IFRS 9 does not prescribe any specific methodology for how transaction costs should be amortised for a floating rate instrument. Any consistent methodology that would establish a reasonable basis for amortisation of the transaction costs may be used. For example, it would be reasonable to determine an amortisation schedule of the transaction costs based on the interest rate in effect at inception. In my view, this approach also could be applied for a floating rate instrument recognised at amortised cost with an embedded derivative that is not separated (e.g., a floating rate bond with a cap). Another reasonable approach would be to linearly amortise the transaction costs over the life of the instrument.

1.3 EXAMPLES OF ACCOUNTING FOR FIXED RATE BONDS

Suppose that an investor bought, at a discount, a fixed rate bond with the following terms:

	Bond terms
Purchase price	EUR 98 million
Purchase date	1-Jan-X0
Notional	EUR 100 million
Maturity	Three years (31-Dec-X2)
Notional	USD 100 million
Coupon	5% annually, 30/360 basis

1.3.1 Example of a Fixed Rate Bond at Amortised Cost

$$98 = \frac{5}{1 + EIR} + \frac{5}{(1 + EIR)^2} + \frac{105}{(1 + EIR)^3}$$

Let us assume that the bond was recognised at amortised cost, and that no impairments were recognised. The calculation of the effective interest rate was performed as follows (in EUR millions):

EIR was 5.7447%.

Year	Amortised cost beginning of year (a)	Interest (b) = (a) × EIR	Cash Flow (c)	Amortised cost end of year (d) = (a) + (b) – (c)
1	98,000,000	5,630,000	5,000,000	98,630,000
2	98,630,000	5,666,000	5,000,000	99,296,000
3	99,296,000	5,704,000	5,000,000	100,000,000

The related accounting entries were as follows:

Entries on 1-Jan-X0:			
Bond (Asset)		98,000,000	
	Cash (Asset)		98,000,000
Entries on 31-Dec-X0:			
Cash (Asset)		5,000,000	
Bond (Asset)		630,000	
	Interest income (Profit or loss)		5,630,000
Entries on 31-Dec-X1:			
Cash (Asset)		5,000,000	
Bond (Asset)		666,000	
	Interest income (Profit or loss)		5,666,000

<i>Entries on 31-Dec-X2:</i>		
Cash (Asset)	105,000,000	
Bond (Asset)		105,000,000
	Interest income (Profit or loss)	5,704,000

1.3.2 Example of a Fixed Rate Bond Recognised at FVOCI

Let us assume that the bond was recognised at FVOCI, and that no impairments were recognised. Let us assume further that the fair value of the bond on 31 December 20X0 and 31 December 20X1 was EUR 97 million and EUR 101 million, respectively. The change in the bond's clean fair at each reporting date was:

Year	Clean fair value (a)	Previous clean fair value (b)	Change (c) = (a) – (b)
1	97,000,000	98,000,000	<1,000,000>
2	101,000,000	97,000,000	4,000,000
3	100,000,000	101,000,000	<1,000,000>

In order to account for the bond the investor had to keep track of both the bond's amortised cost and its fair value. The bond's amortised cost profile, which was identical to that in the previous example, determined the interest expense to be recognised at each period.

Any difference between the bond's clean fair value (i.e., excluding accrued interest) and its amortised cost was recognised in the FVOCI reserve in OCI.

Year	Clean fair value (a)	Amortised cost end of year (b)	FVOCI reserve (c) = (a) – (b)	Previous FVOCI reserve (d)	New FVOCI entry (e) – (d)
1	97,000,000	98,630,000	<1,630,000>	-0-	<1,630,000>
2	101,000,000	99,296,000	1,704,000	<1,630,000>	3,334,000
3	100,000,000	100,000,000	-0-	1,704,000	<1,704,000>

The related accounting entries were as follows:

<i>Entries on 1-Jan-X0:</i>		
Bond (Asset)	98,000,000	
	Cash (Asset)	98,000,000
<i>Entries on 31-Dec-X0:</i>		
Cash (Asset)	5,000,000	
FVOCI reserve (Equity)	1,630,000	
	Bond (Asset)	1,000,000
	Interest income (Profit or loss)	5,630,000

Entries on 31-Dec-X1:			
Cash (Asset)		5,000,000	
Bond (Asset)		4,000,000	
	Interest income (Profit or loss)		5,666,000
	FVOCI Reserve (Equity)		3,334,000
Entries on 31-Dec-X2:			
Cash (Asset)		105,000,000	
FVOCI reserve (Equity)		1,704,000	
Bond (Asset)			101,000,000
	Interest income (Profit or loss)		5,704,000

1.4 ACCOUNTING CATEGORIES FOR FINANCIAL LIABILITIES

1.4.1 Financial Liability Categories

A financial liability is any liability that is a contractual obligation to deliver cash or some other financial asset to another entity or to exchange financial instruments with another entity under conditions that are potentially unfavourable.

Under IFRS 9 there are only two categories of financial liabilities (see Figure 1.5): at amortised cost and at FVTPL. The following table summarises the accounting treatment of each category of financial liabilities:

Liability category	Measurement	Fair value changes
At amortised cost	Amortised cost. Any premium or discount is amortised to profit or loss	Not relevant by virtue of not being fair valued
At FVTPL	Fair value	Changes in fair value attributable to changes in credit risk presented in OCI (unless it creates or increases accounting mismatch) Remaining changes in fair value recorded in profit or loss

The category of financial liabilities at FVTPL has two sub-categories: liabilities held for trading and those designated to this category at their inception using the FVO. Financial liabilities classified as held for trading include:

- financial liabilities acquired or incurred principally for the purpose of generating a short-term profit (i.e., held for trading);
- a derivative not designated in a cash flow or net investment hedging relationship, or the ineffective part if designated;
- obligations to deliver securities or other financial assets borrowed by a short seller;

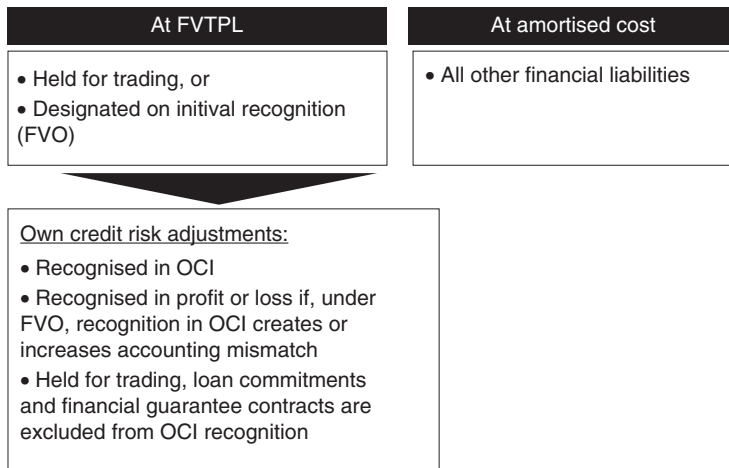


FIGURE 1.5 IFRS 9 financial liabilities classification categories.

- financial liabilities that are part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking.

The following instruments are measured under specific guidance in IFRS 9:

- financial guarantee contracts; and
- commitments to provide a loan at a below market interest rate.

1.4.2 Partial Repurchases of Financial Liabilities

When an entity repurchases own financial liabilities, the repurchased part is derecognised. According to IFRS 9, “if an entity repurchases a part of a financial liability, the entity shall allocate the previous carrying amount of the financial liability between the part that continues to be recognised and the part that is derecognised based on the relative fair values of those parts on the date of the repurchase. The difference between (a) the carrying amount allocated to the part derecognised and (b) the consideration paid, including any non-cash assets transferred or liabilities assumed, for the part derecognised shall be recognised in profit or loss.”

1.4.3 Changes in Credit Risk in Financial Liabilities at FVTPL

The amount of change in the fair value of a liability designated at FVTPL under the FVO that is attributable to changes in credit risk must be presented in other comprehensive income (OCI), unless:

- Presentation of the fair value change in respect of the liability’s credit risk in OCI would create or enlarge an accounting mismatch in profit or loss. In this case, the fair value change attributable to changes in credit risk must be recognised in profit or loss. This determination is made at initial recognition of the individual liability and will not be reassessed.

The remainder of the change in fair value is presented in profit or loss.

To determine whether the treatment would create or enlarge an accounting mismatch, the entity must assess whether it expects the effect of the change in the liability's credit risk to be offset in profit or loss by a change in fair value of another financial instrument. In reality, such instances are expected to be rare, unless an entity, for example, holds an asset whose fair value is linked to the fair value of the liability.

The changes in credit risk recognised in OCI are *not* recycled to profit or loss on settlement of the liability.

The following instruments, when recognised at FVTPL, are not required to isolate the change in fair value attributable to credit risk (i.e., all gains and losses are presented in profit or loss):

- financial guarantee contracts; and
- loan commitments.

Measurement of a Liability's Credit Risk IFRS 9 largely carries forward guidance from IFRS 7 on how to determine the effect of changes in credit risk. An entity determines the amount of the fair value change that is attributable to changes in its credit risk either:

- as the amount of change in its fair value that is not attributable to changes in market conditions that give rise to market risk (e.g., a benchmark interest rate, the price of another entity's financial instrument, a commodity price, a foreign exchange rate or an index of prices or rates); or
- using an alternative method, if it provides a more faithful representation of the changes in the fair value of the liability attributable to the changes in its credit risk.

IFRS 9 clarifies that this would include any liquidity premium associated with the liability.

If the only significant relevant changes in market conditions for a liability are changes in an observed (benchmark) interest rate, under IFRS 9 the amount of fair value changes that is attributable to changes in credit risk may be estimated using the so-called **default method** as follows:

- 1) The entity first calculates the liability's internal rate of return at the start of the period using the liability's fair value and contractual cash flows at that date. It then deducts from this internal rate of return the observed (benchmark) interest rate at the start of the period so as to arrive at an "instrument-specific component" of the internal rate of return.
- 2) Next, the entity computes a present value of the cash flows of the liability at the end of the period using the liability's contractual cash flows at that date and a discount rate equal to the sum of (i) the observed (benchmark) interest rate at that date and (ii) the instrument-specific component of the internal rate of return determined in 1).
- 3) The entity then deducts the present value calculated in 2) from the fair value of the liability at the end of the period. The resulting difference is the change in fair value that is not attributable to changes in the observed (benchmark) interest rate and which is assumed to be attributable to changes in credit risk.

This default method is appropriate only if the only significant relevant changes in market conditions for a liability are changes in an observed (benchmark) interest rate and that, when other factors are significant, an alternative measure that more faithfully measures the effects of changes in the liability's credit risk should be used. For example, if the liability contains an embedded derivative, the change in fair value of the derivative would be excluded in calculating the fair value change amount attributable to changes in credit risk.

1.5 THE FAIR VALUE OPTION

The **fair value option** is an option to designate financial assets or financial liabilities at FVTPL. The election is available only on initial recognition and is irrevocable. In the case of **financial assets**, the FVO is available for instruments that would otherwise be mandatorily recognised at amortised cost or at FVOCI, being permitted only if:

- it eliminates or significantly reduces a measurement or recognition inconsistency (an **accounting mismatch**).

In the case of **financial liabilities**, the FVO is available for instruments that would otherwise be mandatorily recognised at amortised cost, being permitted only if:

- it eliminates or significantly reduces an accounting mismatch; or
- a group of financial liabilities (or financial assets and financial liabilities) is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy, and the information about the group is provided internally on that basis to the entity's key management personnel; or
- a contract contains one or more embedded derivatives and the host is not a financial asset, in which case an entity may designate the entire hybrid contract at FVTPL unless the embedded derivative is insignificant or it is obvious that separation of the embedded derivative would be prohibited.

The FVO is only available on initial recognition of the financial asset or liability. This requirement may create a problem if the entity enters into offsetting contracts on different dates. A first financial instrument may be acquired in the anticipation that it will provide a natural offset to another instrument that has yet to be acquired. If the natural hedge is not in place at the outset, IFRS 9 would not allow the first financial instrument to be recorded at FVTPL, as it would not eliminate or significantly reduce a measurement or recognition inconsistency. Additionally, to impose discipline, an entity is precluded from reclassifying financial instruments in or out of the fair value category, unless (in the case of financial assets) the business model for those assets changes.

Accounting Mismatch Sometimes a particular market risk that affects a financial asset or a financial liability is hedged with another financial instrument that behaves in an opposite way to movements in such market risk (i.e., an increase in the market variable would increase the fair value of one of the two items while decreasing that of the other item). In this case, the entity would be interested in measuring the financial asset or financial liability at FVTPL to benefit from their natural offsetting. The entity could apply the FVO because it will eliminate or significantly reduce the measurement or recognition inconsistency that would otherwise arise from measuring these assets or liabilities, or recognising the gains and losses on them, on different bases.

1.6 HYBRID AND COMPOUND CONTRACTS

1.6.1 Embedded Derivatives in Assets or Liabilities – Hybrid Instruments

Sometimes, a derivative is “embedded” in an instrument – called a **hybrid instrument** or **hybrid contract** – in combination with a host contract. The embedded derivative causes some

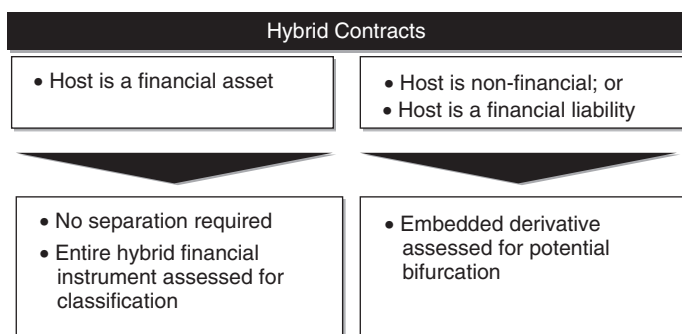


FIGURE 1.6 IFRS 9 hybrid contracts accounting treatment.

or all of the contractual cash flows to be modified based on a specified interest rate, a security price, a commodity price, a foreign exchange rate, index of prices or rates, or other variables. The accounting treatment depends on whether the host is a financial asset or a financial liability (see Figure 1.6).

A derivative that is attached to a financial instrument but is contractually transferable independently of that instrument (e.g., an equity warrant attached to a bond), or has a different counterparty, is not an embedded derivative, but a separate financial instrument.

Host Contract is a Financial Asset When the host contract is a financial asset within the scope of IFRS 9, the hybrid financial instrument is *not* bifurcated; instead it is assessed in its entirety for classification under the standard.

Existence of a derivative feature in a hybrid instrument might not preclude amortised cost. This may be the case when the economic risks and characteristics of the instrument are closely related to the host contract.

Example: Investment in an convertible bond

An entity invests in a convertible bond. Under the terms of the bond, the entity has the right to convert the bond into a fixed number of shares of the bond's issuer. From a structuring perspective, the bond can be split between a debt instrument and an equity option. From an accounting perspective, the convertible bond would be classified at FVTPL in its entirety as the conversion right causes the instrument to fail the SPPI test.

Host Contract is a Financial Liability or a Non-financial Host When the host contract is either (i) a financial liability within the scope of IFRS 9 or (ii) an instrument not within the

scope of IFRS 9, an assessment is performed to determine whether the embedded derivative must be separated from the host (i.e., whether the embedded derivative should be accounted for separately).

IFRS 9 does not require the separation of the embedded derivative (see Figure 1.7):

- if the derivative does not qualify as a derivative if it were free-standing; or
- if the host contract is accounted for at fair value, with changes in fair value recorded in profit and loss; or
- if the economic characteristics and risks of the embedded derivative are closely related to those of the host contract.

Contracts with embedded derivatives to be separated include:

- options to extend the maturity date of fixed rate debt, except when interest rates are reset to market rates;
- any derivative that “leverages” the payments that would otherwise take place under the host contract;
- credit-linked notes, convertible bonds, equity or commodity indexed notes, notes with embedded currency options.

Examples of contracts not requiring separation include:

- debt without leveraged interest rates;
- debt without leveraged inflation;
- debt with vanilla interest rate options (i.e., caps and floors);
- debt with cash flows linked to the creditworthiness of a debtor.

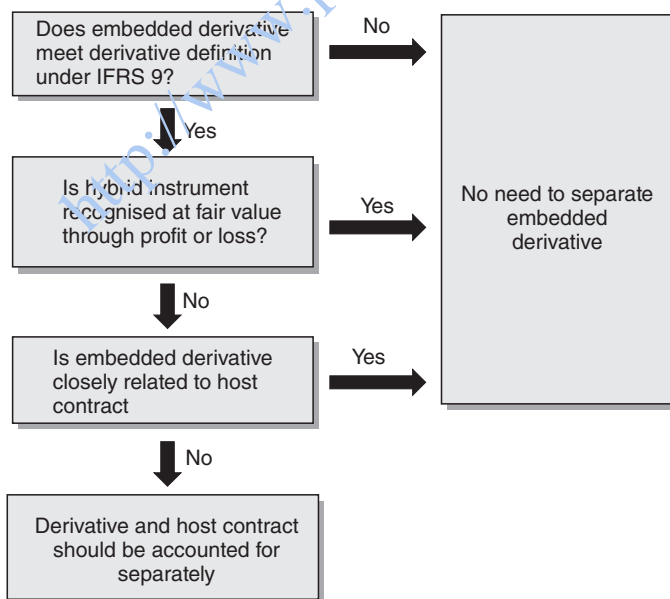


FIGURE 1.7 Bifurcation of embedded derivative in financial liabilities – decision tree.

Example: Issuance of an exchangeable bond

An entity might issue a low coupon bond that is exchangeable for shares in another listed company. Under IFRS 9, the amount received for the exchangeable bond is split between:

- a liability component – an obligation to pay the scheduled coupons and, when the bond is not converted, the principal; and
- an embedded derivative – the conversion right by the bondholders (a sold call option on the third-party shares).

1.6.2 Liability Compound Instruments

The concept of compound instruments is similar to that of hybrid instruments (see Figure 1.8). A hybrid instrument is comprised of a liability component (the host contract) and an embedded derivative, while a compound instrument is comprised of a liability component (the host contract) and an equity component. An example of a compound instrument is a bond issued by the entity that is convertible into a fixed number of shares of the entity, which can be split between:

- a **liability component** – an obligation to pay the scheduled coupons and, when the bond is not converted, the principal; and
- an **equity component** – the conversion right by the bondholders (a sold call option on own shares).

Compound instruments are defined in IAS 32. The liability and equity components of a compound instrument are required to be accounted for separately, upon initial recognition, and the separation is not subsequently revised. The split between the two components is implemented in two steps:

The fair value of the liability component is calculated, and this fair value establishes the initial carrying amount of the liability component,

The fair value of the liability component is deducted from the fair value of the instrument in its entirety, with the residual amount being an equity component.

I have included several cases that cover the accounting of convertible bonds in Chapter 9.

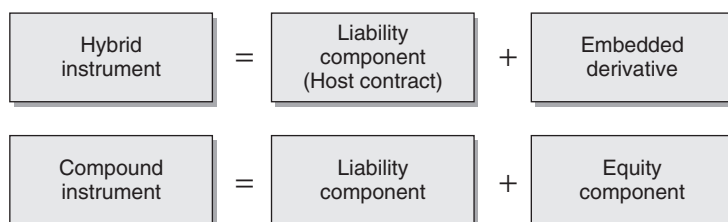


FIGURE 1.8 Hybrid and compound instruments.