

# IFRS 9 and IFRS 13

## IFRS 9 replaces IAS 39

As a result of the financial crisis and other reasons, the legal requirements on the risk provision calculation for bank institutions that are obliged to prepare financial statements in compliance with IFRS (International Financial Reporting Standards) have been fundamentally revised. The new requirements are summarised in IFRS 9 which replaces IAS 39.

IFRS 9 Measurements include:

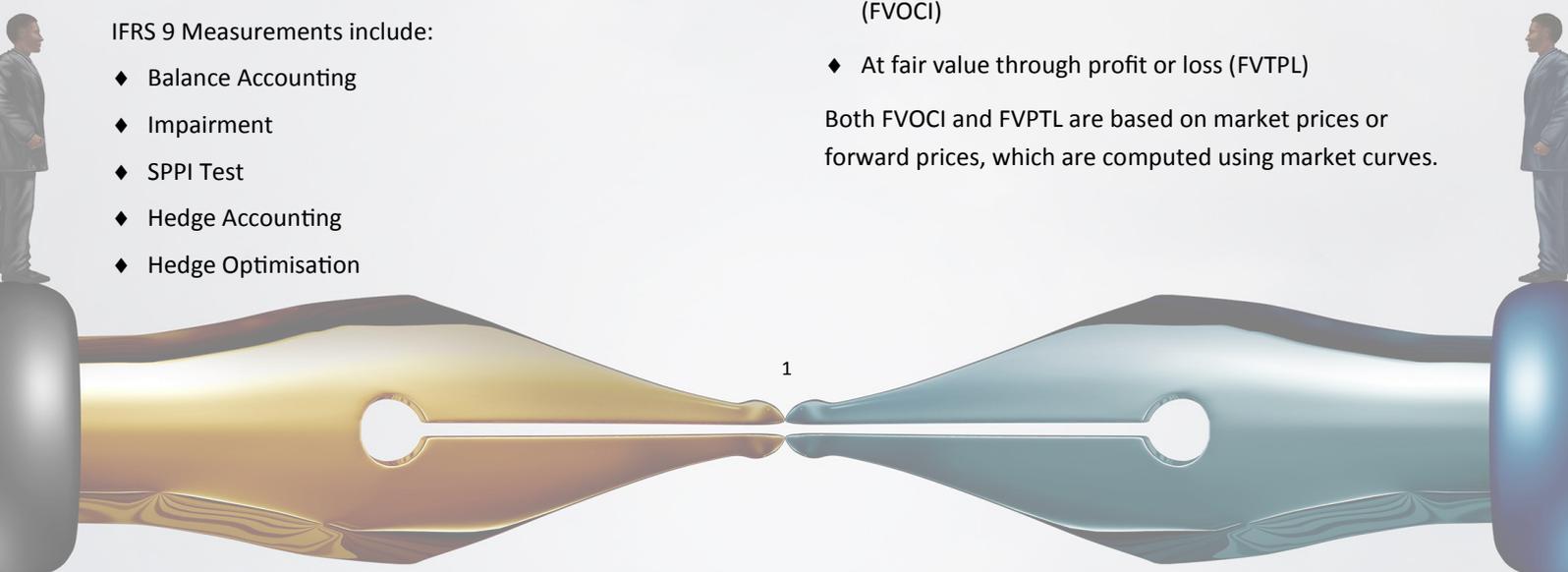
- ◆ Balance Accounting
- ◆ Impairment
- ◆ SPPI Test
- ◆ Hedge Accounting
- ◆ Hedge Optimisation

## IFRS 9 Balance Accounting

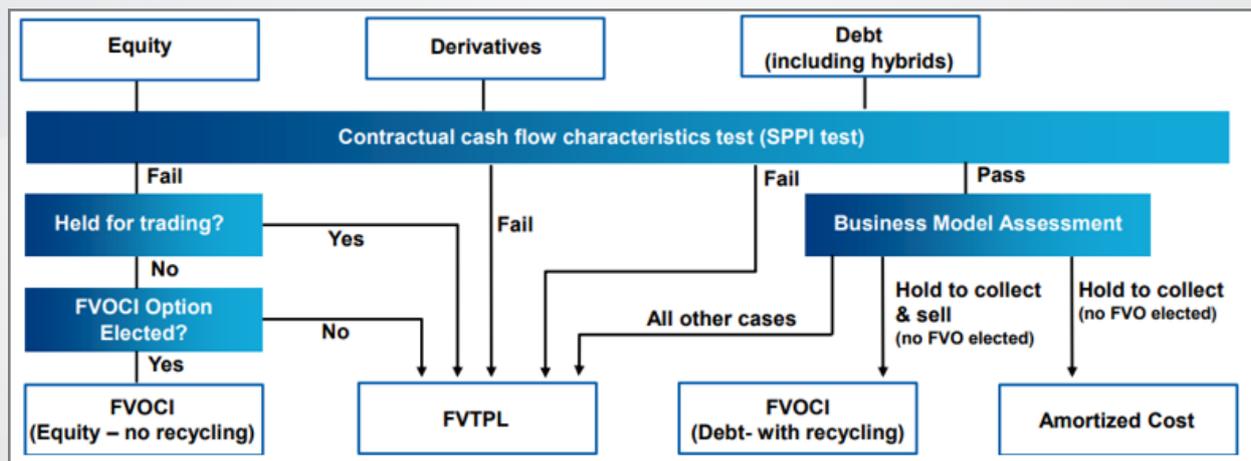
In Balance Accounting, there are three main categories for measuring financial assets/liabilities:

- ◆ At amortised cost, based on EIR (effective interest rate = IRR versus initial recognition) for compounding and calculating the gross carrying amount and the amortised cost until maturity for every payment date
- ◆ At fair value through other comprehensive income (FVOCI)
- ◆ At fair value through profit or loss (FVTPL)

Both FVOCI and FVPTL are based on market prices or forward prices, which are computed using market curves.



The following rules govern the classification of assets and liabilities in different categories:



## IFRS 9 Impairment

IFRS 9 Impairment places its focus on the replacement of the accounting standards of IAS 39 with IFRS 9 (i.e. the switch from the “Incurred Loss” approach to the future-oriented “Expected Loss” approach):

- ◆ Calculation of the ECL (Expected Credit Loss) for assets

and for every payment date in the future using the EAD (Exposure-at-Default, accounting for amortisations) forecast

- ◆ LGD (Loss Given Default, accounting for collaterals) and
- ◆ PD (the issuer’s probability of default for the respective rating level)

## SPPI Test

### (Solely Payments of Principal and Interest)

In the context of IFRS 9, SPPI is one of the two requirements for classifying an instrument at amortised cost. The objective of the SPPI test is to determine whether or not by definition an agreement only pays interest and principal rather than quantifying the respective amounts.

The SPPI test in PMS presents the rights to cash flows and the risks and volatilities the lender is exposed to.

Based on the requirements of IFRS 9, the PMS (Portfolio and Risk Management) standard software solution offers the **qualitative SPPI tests** on the one hand and the **quantitative SPPI valuation test**, the so-called benchmark test, on the other hand in case that the tested instrument is marked as **Further**.

If an instrument passes all of the 10 tests, then the SPPI test will be set to **Pass**; if not the SPPI is flagged as **Further** or **Fail**.

Instruments that are set to **Further** have to go another test, the benchmark test, so that they can be assigned a final flag: **Pass** or **Fail**.

The benchmark test compares a real (imperfect) instrument with an ideal (dummy) position without any special features.

The test passes through three phases:

- ◆ Comparison of future cash flows
- ◆ Historical Simulation
- ◆ Monte Carlo Simulation

2

## IFRS 9 Hedge Accounting

The treatment of assets within Balance Accounting, while being included in Hedge Accounting as well is different with regard to the hedging period and is recognised according to effective/ineffective hedge in equity or profit/loss.

Hedge Accounting is based on the following aspects:

- ◆ Creation of hedge links for micro & macro hedge
  - ◇ Interest Rate Risk Hedge
  - ◇ Equity Risk Hedge
  - ◇ FX Risk Hedge
  - ◇ Commodity Risk Hedge
  - ◇ Expected Credit Risk Loss
- ◆ Hedge categories
  - ◇ Fair Value Hedge
  - ◇ Cash Flow Hedge
  - ◇ Hedges of Net Investment in an Foreign Entity

- ◆ Hedge periods
  - ◇ Theoretical (prospective)
  - ◇ Historical (retrospective)
  - ◇ Retrospective and prospective
- ◆ Testing of the hedge effectiveness measurement between 80 % and 120 % and depending on the business model
  - ◇ Critical Term Match, Hypothetical Derivative Simplification
  - ◇ Dollar Offset (simple scenario analysis method)
  - ◇ Regression Line (linear regression method)
  - ◇ Monte Carlo Simulation

## IFRS 9 Hedge Optimisation

The term "Hedge" denotes a financial transaction to hedge a portfolio against specific risks such as FX rate fluctuations, commodity price changes ...).

Hedge Optimisation aims at providing help in identifying the best hedge proposal for a portfolio. The hedge proposals can be used for Hedge Accounting.

A hedge is performed using derivatives as hedging factors:

In the context of interest rates

- ◆ Interest Rate Swap, Cap, Floor, Swaption, Bond Futures, Bond Option
- ◆ Basis point risk (parallel shift of the interest rate curve by 1 BP)

- ◆ Basis point risk based on the key rate analysis (interest rate changes by 1 BP)
- ◆ VaR based on 99 % confidence level, 1 day or 10 days holding period for Historical Simulation, VaR/Covar (Risk Metrics) and Monte Carlo Simulation

In the context of shares

- ◆ Stock Option, Stock Index Futures, Stock Index Option
- ◆ Beta and Delta Factor
- ◆ VaR based on 99 % confidence level, 1 day or 10 days holding period for Historical Simulation, VaR/Covar (Risk Metrics) and Monte Carlo Simulation

3

In the context of currencies

- ◆ FX Outright, FX Futures, FX Option
- ◆ Sensitivity towards a change in the FX rate (FX change)
- ◆ VaR based on 99 % confidence level, 1 day or 10 days holding period for Historical Simulation, VaR/Covar (Risk Metrics) and Monte Carlo Simulation

In the context of credit risks

- ◆ CDS on Spread/Index, CDS Swaptions
- ◆ Expected Loss

## IFRS 13

IFRS 13 defines the fair value as the price that would be received for selling an asset or paid to transfer a liability in a transaction between market participants at the measurement date (i.e. an exit price).

When measuring fair value, an entity uses the assumptions that market participants would use when pricing the asset or liability under current market conditions, including assumptions about risk.

Depending on the instrument category, two approaches can be applied:

### 1 Fair Value of Assets

The fair value of assets is mainly influenced by the expected credit loss and liquidity loss. The recognition of the market risk is incorporated in an instrument exposure profile along the time axis accounting for interest rates. The same applies to embedded single or multi-callable/multi-puttable options.

## 2 Fair Value of Derivatives

The fair value of derivatives accounts for market risk by calculating the instrument exposure profile along the time axis, taking the loss distributions and the relationship to the zero line into account however. The calculation of the instrument exposure profile is based on a historical simulation and a risk forecast to provide positive as well as negative expected exposures which - along with the own CDS curve or index and the counterparty's CDS curve or index - are used to measure the CVA (Credit Value Adjustment) and the DVA (Debt Value Adjustment) of the risk-free market value. CVA and DVA reflect the counterparty risk and one's own risk.

The following derivatives are supported in PMS:

- ◆ Interest Rate Swap
- ◆ Cross Currency Swap
- ◆ FX Outright
- ◆ FX Spot
- ◆ FX Swap
- ◆ Cap
- ◆ Floor