IFRS 9 – Impairment of financial assets

Presentation by:

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IFRS 9

- Impairment of financial assets
- Expected credit loss provisioning
Financial assets

- **Equity**
  
  Under IFRS 9, all equity instruments are measured at FV and are not subject to impairment considerations unlike IAS 39.

- **Debt instruments**

  Debt instruments could be measured at:

  a) Amortised cost
  
  b) Fair value through profit or loss (no impairment consideration)
  
  c) Fair value through OCI
A financial asset is assessed at each reporting date to determine whether there is any objective evidence that it is impaired.

A financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset that can be estimated reliably.

An impairment loss is the difference between the carrying amount, and the present value of the estimated future cash flows discounted at the original effective interest rate.
Impairment of financial assets

- Individually significant financial assets are tested for impairment on an individual basis.
- The remaining financial assets are assessed collectively in groups that share similar credit risk characteristics.
- All impairment losses are recognised in profit or loss and reflected in an allowance account.
- An impairment loss is reversed if the reversal can be related objectively to an event occurring after the impairment loss was recognised.
Impairment

Debt instrument

Are the asset’s contractual cash flows solely payments of principal and interest (SPPI)?

Is the business model’s objective to hold to collect contractual cash flows?

Is the business model’s objective both to collect contractual cash flows and to sell?

Yes  Amortised cost *

No  FVOCI *

No  FVTPL *
### Principal Changes From IAS 39

<table>
<thead>
<tr>
<th></th>
<th>IAS 39</th>
<th>IFRS 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of model</td>
<td>Incurred loss</td>
<td>Expected loss</td>
</tr>
<tr>
<td>Scope</td>
<td></td>
<td>Expanded</td>
</tr>
<tr>
<td>Equity instruments</td>
<td>Impairment</td>
<td>No impairment for equity instruments</td>
</tr>
<tr>
<td></td>
<td>recognised for AFS*</td>
<td></td>
</tr>
<tr>
<td>Judgement</td>
<td></td>
<td>Expanded</td>
</tr>
</tbody>
</table>

* AFS – Available for sale
• The following table sets out instruments that are in and out of scope of IFRS 9’s impairment requirements:

<table>
<thead>
<tr>
<th>In scope</th>
<th>Out of scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>— Financial assets measured at amortised cost or at FVOCI (this includes loans, trade receivables and debt securities)</td>
<td>— Equity investments</td>
</tr>
<tr>
<td>— Loan commitments not at FVTPL</td>
<td>— Loan commitments at FVTPL</td>
</tr>
<tr>
<td>— Financial guarantee not at FVTPL</td>
<td>— Other financial instruments measured at FVTPL</td>
</tr>
<tr>
<td>— Lease receivables (IAS 17/ IFRS 16)</td>
<td></td>
</tr>
<tr>
<td>— Contract assets (IFRS 15)</td>
<td></td>
</tr>
</tbody>
</table>
Expected credit loss model
Impairment – the new model

Expected loss model

Past events +

Current conditions +

Forecast of future economic conditions
Off-balance Sheet

Credit Limit (CU 1000)

Drawn CU 200 (ie loan receivable)

Undrawn CU 800 (ie loan commitment)

Apply the expected credit loss (ECL) model

If extends credit/credit card, apply the ECL model

If sells goods, and then offer to sell goods on credit, then out of scope
**Impairment - high level overview**

- **Expected loss (EL)** is a statistical measure used to reflect expectations of future losses based on historical data.
- The three primary components are derived based on observation, empirical evidence, and expert judgment.
- The objective is to quantify loss expectations over a 12 month forecast.

- **Probability of default (PD)** represents the average expectation over the course of an entire business cycle (through-the-cycle) as opposed to specific current expectations (point-in-time).
- PD represents the risk of a borrower or obligor failing to meet their obligations.

- **Loss given default (LGD)** represents the losses resulting from defaults over the next 12 months. Ideally, the LGD will be separated for secured and unsecured portions of an exposure. LGD is a prudent parameter based on an assumed downturn in the economic conditions.

- **Exposure at default (EAD)** represents the amount a financial institution stands to lose in the event of a default event. For a 12 month horizon, the EAD is defined as the current exposure without considering payments. Undrawn commitments are factored in using statistical probabilities of drawing.

The formula to calculate expected loss is:

\[ EL = PD \times LGD \times EAD \]

- Changes to existing models are necessary to comply with lifetime expected credit loss (LECL) requirements.
12-month expected loss

EIR on gross amount (excl loss allowance)

Stage 1
Performing “The Good”

Stage 2
Under-Performing “The Bad”

Stage 3
Non-Performing “The Ugly”

12-month ECLs are the portion of lifetime expected credit losses that represents losses resulting from default events that are possible within 12 months.

Lifetime ECLs are the expected credit losses that result from all possible default events over the expected life of a financial instrument.

IFRS 9 ECL - General model

Significant increase in credit risk (credit deterioration) since initial recognition

Impairment recognition

Lifetime expected loss

EIR on gross amount (excl loss allowance)

Interest revenue recognition

EIR on gross amount (excl loss allowance)

EIR on amortised cost (net of loss allowance)
Credit quality deterioration since initial recognition

Impairment recognition

**Stage 1**
*Performing “The Good”*

**Stage 2**
*Under-Performing “The Bad”*

**Stage 3**
*Non-Performing “The Ugly”*

12-month ECLs are the portion of lifetime expected credit losses that represents losses resulting from default events that are possible within 12 months.

Lifetime ECLs are the expected credit losses that result from all possible default events over the expected life of a financial instrument.
Impairment Model – General model

**Impairment recognition**
Credit quality deterioration since initial recognition

12-month ECL

**Stage 1**
Performing

Lifetime ECL

**Stage 2**
Under-Performing

Lifetime ECL

**Stage 3**
Non-Performing

Transfer of **individual assets** back to stage 1 when criteria above are no longer met
*(symmetric model)*

Transfer of **individual assets** back to stage 2 when asset has **recovered from default***
Key technical battlegrounds

- Significant deterioration
- Maturities
- Application to modified assets
- Data quality and limitations – undue cost and effort

- Practical expedient of low-credit risk threshold
- 90 days past due rebuttable presumption of default
- Delinquency plus vs behavioural score approach

- Stress-testing
- Economic forward guidance
- Key modelling parameters
Impairment for corporates (non-financial institutions)

Provision matrix
Manufacturer M operates only in one geographical location, and has a portfolio of trade receivables of CU30million on 31 December 20X1.

- The customer base consists of a large number of small clients.
- The trade receivables have common risk characteristics.
- The trade receivables do not have a significant financing component.
- M uses a provision matrix to calculate impairment.

**Provision matrix estimate:**

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>1–30 days past due</th>
<th>31–60 days past due</th>
<th>61–90 days past due</th>
<th>More than 90 days past due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default rate</td>
<td>0.3%</td>
<td>1.6%</td>
<td>3.6%</td>
<td>6.6%</td>
<td>10.6%</td>
</tr>
</tbody>
</table>

The provision matrix is based on:

- historical default rates over the expected life of the trade receivables; and
- adjustment for forward-looking estimates.
Constructing default rates (1/3)

1. Historical loss-rate
2. Adjust future expectations
3. Management judgement overlay
Take a snapshot at point of time (e.g. 1 January). In the example this is CU 5million. Take a second snapshot after 90 days. Compare how much of the balance moved into more than 90 days past due.

<table>
<thead>
<tr>
<th>Gross carrying amount</th>
<th>Current</th>
<th>1-30 days past due</th>
<th>31-60 days past due</th>
<th>61-90 days past due</th>
<th>More than 90 days past due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (1st snapshot)</td>
<td>CU 15m</td>
<td>CU 7.5m</td>
<td>CU 4m</td>
<td>CU 2.5m</td>
<td>CU 1m</td>
</tr>
<tr>
<td>2nd snapshot (How much of the balance moved to more than 90 dpd)</td>
<td>CU 45 000</td>
<td>CU 120 000</td>
<td>CU 144 000</td>
<td>CU 165 000</td>
<td>CU 106 000</td>
</tr>
<tr>
<td>Construct default rate: (2nd snapshot / 1st snapshot)</td>
<td>0.3%</td>
<td>1.6%</td>
<td>3.6%</td>
<td>6.6%</td>
<td>10.6%</td>
</tr>
</tbody>
</table>
Due to Company M’s nature of receivables (a large number of small clients, categorised by common risk characteristics that are representative of the customers’ abilities to pay all amounts due and trade receivables do not have a significant financing component), the loss allowance for such trade receivables is always measured at an amount equal to lifetime ECL. Company M uses a provision matrix to calculate ECL using the following provision matrix:

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>1-30 days past due</th>
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<td>CU 15m</td>
<td>CU 7.5m</td>
<td>CU 4m</td>
<td>CU 2.5m</td>
<td>CU 1m</td>
</tr>
<tr>
<td><strong>Lifetime ECL</strong></td>
<td>CU45,000</td>
<td>CU120,000</td>
<td>CU144,000</td>
<td>CU165,000</td>
<td>CU106,000</td>
</tr>
</tbody>
</table>

The lifetime ECL for the large number of small customers is accordingly the total of **CU580,000**
Impairment – General approach versus Simplified approach

- **Lease Receivables (financing or operating)**
- **Trade receivables and contract assets with a significant financing component**
- **Trade receivables and contract assets without a significant financing component**

Policy election to apply

**General Approach**
- 12-month expected credit loss
  - Transfer
  - Move Back
- Lifetime expected credit loss

**Simplified Approach**
- Loss allowance always equal to lifetime expected credit losses
Calculating the probability-weighted expected credit loss

This involves defining your probability parameters of when an expected loss will occur.

\[
\text{Probability} = \frac{\text{event}}{\text{number of outcomes}}
\]

For example, the event could be defined as non-payment of an invoice within the stipulated credit terms and the number of outcomes is therefore 2, being the debtor either paid or did not pay the invoice within the stipulated credit terms.
Example continued: Probability weighted expected credit loss

Company T sells goods on credit with invoices payable within 30 days of invoice date. Based on historic data, all invoices were either paid in full or not paid (i.e. there were no partial payments of invoices). Company T has defined the event in the probability calculation as non-payment of an invoice within 30 day credit term. Historic data showed the following trend in invoice payments:

<table>
<thead>
<tr>
<th>Number of invoices paid within 30 days</th>
<th>1,400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of invoices paid after 30 days or still outstanding at reporting date</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total number of invoices</strong></td>
<td><strong>1,450</strong></td>
</tr>
</tbody>
</table>

Based on the above table, the probability that a debtor will not pay their invoice within the 30 day credit term is 3.4% (50/1450). This is the base expected credit loss to be applied to all the buckets.
PD considerations
Probability of default considerations

- Segmentation
- Definition of default – consistent, document rebuttal
- External rating agency vs Internal ratings Vs modelled PDs (investment securities)
- Time horizon – amount of data
- Count vs Value
- Average/ Sum Vs most recent Data Vs cure rate
- 12-month PD and Life-time PDs
Forward looking information
Incorporating FLI & macroeconomic factors (1/2)

1. Identify the relevant macroeconomic factors and obtain the historical figures.

2. Assess how the Organisation’s historical default rates have changed relative to the change in each of the relevant macroeconomic factors.

3. Estimate an empirical relationship between the portfolio PDs and macroeconomic variables through regression analysis.

$$f(\Delta PD) = (\beta_1 * \Delta GDP) + (\beta_2 * \Delta FX_{Rate}) + (\beta_3 * \Delta Interest\_Rate) + \epsilon_t$$

4. Maintain only variables with significant coefficients, which also have the sign expected under the working hypotheses.

<table>
<thead>
<tr>
<th>Year</th>
<th>Δ PD</th>
<th>Δ GDP</th>
<th>Δ FX rate</th>
<th>Δ Interest rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>0.31%</td>
<td>1.70%</td>
<td>2.04%</td>
<td>2.94%</td>
</tr>
<tr>
<td>2</td>
<td>0.18%</td>
<td>1.40%</td>
<td>1.68%</td>
<td>2.42%</td>
</tr>
<tr>
<td>3</td>
<td>0.55%</td>
<td>3.70%</td>
<td>4.44%</td>
<td>6.39%</td>
</tr>
<tr>
<td>4</td>
<td>0.08%</td>
<td>0.50%</td>
<td>0.60%</td>
<td>0.86%</td>
</tr>
<tr>
<td>5</td>
<td>0.47%</td>
<td>1.10%</td>
<td>1.32%</td>
<td>1.90%</td>
</tr>
</tbody>
</table>
LGD considerations
Loss Given Default considerations

- Secured Vs Unsecured loans
- Data - collateral listings and collections/ recoveries data
- Data – system generated or off the system
- Collateral quality – type, recoverability
- Force sale value and Haircuts
- Discounting and years of discount
- LGD floor and proxy LGDs
EAD considerations
Exposure at Default considerations

- Repayment structure and contractual term
- Prepayments
- Assumptions – revolving facilities
Q&A
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