IFRS 9 Forward-looking information and multiple scenarios

July 2016
The objective of this webcast

- To explore certain aspects of IFRS 9 and the Impairment Transition Group (ITG) discussions about forward-looking information and multiple scenarios.
Recap: IFRS 9 requirements and ITG discussion
Impairment Transition Resource Group (ITG)

- Four meetings held; one introductory conference call in 2014 and three face-to-face meetings during 2015.

- Only one issue was raised with the Board:
  - the staff did not propose any further action in relation to this issue
  - the Board noted the issue but observed that the requirements of IFRS 9 were clear.

- No further meetings have been scheduled:
  - need to balance the provision of implementation support with creating uncertainty that could delay implementation; however
  - the group will remain in place and further meetings will be convened if circumstances warrant it.

- All ITG agenda papers and meeting summaries can be found on the following web page: [http://www.ifrs.org/About-us/IASB/Advisory-bodies/ITG-Impairment-Financial-Instrument/Pages/Meetings.aspx](http://www.ifrs.org/About-us/IASB/Advisory-bodies/ITG-Impairment-Financial-Instrument/Pages/Meetings.aspx)
Expected credit losses (ECL)

an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes

the time value of money

reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions

Paragraph 5.5.17 of IFRS 9
Need not necessarily identify every possible scenario – but must consider the risk that a credit loss occurs reflecting both the possibility of a credit loss or no credit loss occurring (paragraph 5.5.18)

Neither an estimate of a worst-case scenario nor an estimate of the best-case scenario (paragraph B5.5.41)

In some cases, relatively simple modelling without the need for a large number of detailed simulations of scenarios… In others, the identification of scenarios and their estimated probability will probably be needed (paragraph B5.5.42)

When there are many possible outcomes, an entity can use a representative sample of the complete distribution (paragraph BC5.265)
Significant increase in credit risk (‘SICR’)  

• At each reporting date, an entity shall assess whether the credit risk on a financial instrument has increased significantly since initial recognition…

• The objective of the impairment requirements is to recognise lifetime expected credit losses for all financial instruments for which there have been a [SICR]…….considering all reasonable and supportable information, including that which is forward looking (para 5.5.4 of IFRS 9)
May apply various approaches when assessing SICR or when measuring ECL… (paragraph B5.5.12)

The appropriate approach will vary for different levels of sophistication of entities, the financial instrument and the availability of data… (paragraph BC5.157)

[to determine SICR] … in some cases, the qualitative and non-statistical quantitative information may be sufficient … In others, information from statistical models or credit rating processes [may be needed] … (paragraph B5.5.18)
What did the ITG say

If relationship not linear, one forward-looking scenario not sufficient

No prescription of particular method of measuring ECL and determining SICR

Materiality considerations apply

Information from a variety of sources

Consistency of forward-looking information

Disclosure of how forward-looking information has been incorporated (or not)

Reasonable and supportable information available without undue cost or effort
What did the ITG say (cont.)

Regarding determining what is reasonable and supportable information:

• ‘First order effects’ ie what events could happen and their likelihood;

• ‘Second order effects’ ie the effects of such events on ECLs.

• Requires judgment – not only in determining what events might happen that affect ECL but also the quantification of the same.

• Information should *not* be excluded simply because:
  – the event has a low or remote likelihood of occurring; or
  – the effect of that event on the credit risk or the amount of expected credit losses is uncertain.

• The ITG acknowledged that sometimes the information will *not* be reasonable and supportable.

• Emphasised importance of IFRS 7 disclosures.
What IFRS 9 *doesn’t require* and the ITG *didn’t say*

- You must always use multiple scenarios
- You must use three scenarios
- You must use ‘PD’
So what?

What does it all mean?
Current discussions
Common themes of discussion

• When are multiple scenarios relevant?
• Consistency of scenarios: what needs to be consistent?
• Probability-weighted staging: how do I perform a probability-weighted SICR assessment?
• Approaches to incorporate forward-looking scenarios: there are various methods to incorporate forward-looking information in measuring ECL. Which approaches are acceptable?
When multiple scenarios are relevant
When multiple scenarios are relevant

• When are multiple scenarios relevant?
• The ITG view: when there is a non-linear relationship between:

  - forward-looking scenarios
  - credit losses when measuring ECL
  - forward-looking scenarios
  - changes in credit risk when assessing SICR, even if there is no non-linearity in ECL measurement
When multiple scenarios are relevant

- Example: probability-weighted ECL

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Unemployment rate</th>
<th>Scenario probability</th>
<th>Associated ECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative A</td>
<td>4%</td>
<td>33%</td>
<td>75</td>
</tr>
<tr>
<td>Base case</td>
<td>6%</td>
<td>34%</td>
<td>100</td>
</tr>
<tr>
<td>Alternative B</td>
<td>8%</td>
<td>33%</td>
<td>275</td>
</tr>
</tbody>
</table>

- Base case forecast of unemployment rate = 6%
- ECL given employment rate of 6% = CU100

Base case ECL = Probability-weighted ECL

- Probability-weighted ECL = CU150, i.e. (33% x 75)+(34% x 100)+(33% x 275)
When multiple scenarios are relevant

• A non-linear relationship in ECL may be a result of some or all components of ECL.

• Consideration of multiple scenarios is relevant if there is a non-linear relationship between key components of ECL and the relevant economic parameter.

• For example,

<table>
<thead>
<tr>
<th>Illustrative component of ECL</th>
<th>Example of economic parameter where non-linearity may exist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of a default occurring</td>
<td>Unemployment rate</td>
</tr>
<tr>
<td>Credit losses arising on default</td>
<td>House price index</td>
</tr>
</tbody>
</table>
When multiple scenarios are relevant

- Example: Scenarios and their probabilities

<table>
<thead>
<tr>
<th></th>
<th>Upside</th>
<th>Most likely</th>
<th>Downside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 0</td>
<td>10%</td>
<td>80%</td>
<td>10%</td>
</tr>
<tr>
<td>Year 1</td>
<td>10%</td>
<td>60%</td>
<td>30%</td>
</tr>
</tbody>
</table>

- If you consider the most likely scenario only, would you be able to capture the increased risk of the downside scenario occurring in assessment of SICR, and consequently in measurement of ECL and disclosures?

- Consideration of multiple scenarios may be relevant in assessing SICR even if the overall ECL does not have a non-linear relationship with forward-looking scenarios.
Consistency of scenarios
Consistency of scenarios

• Must consistent sets of scenarios be used when measuring ECL and assessing SICR?
• The ITG said:
  - There should be consistency, to the extent relevant, between forward-looking information used to measure expected credit losses and for SICR.
  - However, sometimes complete consistency won’t be appropriate because information might have an impact on the measurement of ECL but not on the assessment of SICR (or vice versa).
• If the same variable is relevant for determining SICR and for measuring ECL, the forecasts of such a variable used should be consistent.
Probability-weighted SICR assessment (‘staging’)
Probability-weighted staging

- Can an asset be in stage 1 and stage 2 at the same time?
- Example: the following data apply to a single financial asset.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Unemployment rate</th>
<th>Scenario probability</th>
<th>12-m PD</th>
<th>Lifetime PD</th>
<th>LGD</th>
<th>EAD</th>
<th>12-m ECL</th>
<th>Life ECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upside</td>
<td>4%</td>
<td>30%</td>
<td>0.04</td>
<td>0.07</td>
<td>55%</td>
<td>CU1,000</td>
<td>CU22</td>
<td>CU39</td>
</tr>
<tr>
<td>Base Case</td>
<td>5%</td>
<td>55%</td>
<td>0.08</td>
<td>0.11</td>
<td>65%</td>
<td>CU1,000</td>
<td>CU52</td>
<td>CU72</td>
</tr>
<tr>
<td>Downside</td>
<td>6%</td>
<td>15%</td>
<td>0.16</td>
<td>0.20</td>
<td>85%</td>
<td>CU1,000</td>
<td>CU136</td>
<td>CU170</td>
</tr>
</tbody>
</table>
Probability-weighted staging

• Approach 1: two-step approach

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Unemployment rate</th>
<th>Scenario probability</th>
<th>12-m PD</th>
<th>Lifetime PD</th>
<th>LGD</th>
<th>EAD</th>
<th>12-m ECL</th>
<th>Life ECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upside</td>
<td>4%</td>
<td>30%</td>
<td>0.04</td>
<td>0.07</td>
<td>55%</td>
<td>CU1,000</td>
<td>CU22</td>
<td>CU39</td>
</tr>
<tr>
<td>Base Case</td>
<td>5%</td>
<td>55%</td>
<td>0.08</td>
<td>0.11</td>
<td>65%</td>
<td>CU1,000</td>
<td>CU52</td>
<td>CU72</td>
</tr>
<tr>
<td>Downside</td>
<td>6%</td>
<td>15%</td>
<td>0.16</td>
<td>0.20</td>
<td>85%</td>
<td>CU1,000</td>
<td>CU136</td>
<td>CU170</td>
</tr>
</tbody>
</table>

• Step one: The probability-weighted PD is 0.1115 \((30\% \times 0.07 + 55\% \times 0.11 + 15\% \times 0.20)\). The entity then determines, based on the PD at initial recognition and this current probability-weighted PD, that no SICR has occurred.

• Step two: 12-month ECL is recognised, CU56 \((30\% \times \text{CU}22 + 55\% \times \text{CU}52 + 15\% \times \text{CU}136)\).
Probability-weighted staging

- **Approach 2: one-step approach**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Unemployment rate</th>
<th>Scenario probability</th>
<th>12-m PD</th>
<th>Lifetime PD</th>
<th>LGD</th>
<th>EAD</th>
<th>12-m ECL</th>
<th>Life ECL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upside</strong></td>
<td>4%</td>
<td>30%</td>
<td>0.04</td>
<td>0.07</td>
<td>55%</td>
<td>CU1,000</td>
<td>CU22</td>
<td>CU39</td>
</tr>
<tr>
<td><strong>Base Case</strong></td>
<td>5%</td>
<td>55%</td>
<td>0.08</td>
<td>0.11</td>
<td>65%</td>
<td>CU1,000</td>
<td><strong>CU52</strong></td>
<td>CU72</td>
</tr>
<tr>
<td><strong>Downside</strong></td>
<td>6%</td>
<td>15%</td>
<td>0.16</td>
<td>0.20</td>
<td>85%</td>
<td>CU1,000</td>
<td>CU136</td>
<td><strong>CU170</strong></td>
</tr>
</tbody>
</table>

- The entity determines that:
  - under the upside and base case scenarios, no SICR has occurred so a 12 month ECL in those cases is selected; and
  - under the downside scenario, a SICR has occurred, so a lifetime ECL would be selected in that scenario.

- The probability-weighted ECL would be CU61 \( (30\% \times \text{CU22} + 55\% \times \text{CU52} + 15\% \times \text{CU170}) \).

Is this appropriate?
Probability-weighted staging

• It was observed at the ITG discussion,
  - Where the range of possible forward-looking economic scenarios is mutually exclusive, a scenario cannot apply to part of an asset, while other scenarios apply to different parts of an asset.

One financial instrument cannot exist in stage 1 and in stage 2 at the same time.
Probability-weighted staging: collective assessment

- If the same fact pattern in our previous example applies to a collectively assessed portfolio of assets, can a SICR occur for a proportion of the portfolio of assets (i.e. in stage 2) while no SICR occurs for the rest of the portfolio?

- At the ITG meeting, it was observed:
  - Where the range of possible forward-looking economic scenarios is mutually exclusive, they cannot be applied to part of a portfolio of assets.
  - However, it is possible that an entity is aware of differences in sensitivities of credit risk to a change in a particular parameter but is unable to group the assets on the basis of such sensitivity. In such instances, an entity may determine that the expected forward-looking scenario would result in a SICR for a certain proportion of its portfolio.
Probability-weighted staging: collective assessment

- For example, transferring 15% of the portfolio to stage 2 would not be appropriate as that represents a scenario probability rather than the proportion of the assets in the portfolio that have a SICR.
Approaches to incorporating forward-looking scenarios
Incorporating forward-looking scenarios

- Various approaches exist...

  Single scenario + scalar adjustment
  Probability-weighted ELC based on ‘n’ number of scenarios
  Monte Carlo simulation

- The ITG noted:
  - IFRS 9 does not prescribe particular methods of assessing significant increases in credit risk and measuring ECL.
Application to a non-PD based approach

- How should forward-looking information be incorporated in approaches that use non-statistical and/or qualitative factors?
- The ITG noted:
  - The assessment of significant increases in credit risk may include both quantitative and qualitative approaches. Consequently, an entity should not restrict itself by considering only quantitative approaches when considering how to incorporate multiple forward-looking scenarios.
  - Whichever approach is taken, it should be consistent with the objectives of IFRS 9 and should consider reasonable and supportable information that is available without undue cost and effort.
Application to a non-PD based approach

- Illustration of one of the possible approaches

Illustrative scorecards inputs

- Retail
  - Customer age
  - Employment status
  - Customer income
- Wholesale
  - Profitability
  - Size
  - Gearing

Adjusted scorecard

Credit scores & credit rating

ECL

Some inputs may have a non-linear relationship to changes in macroeconomic parameter. Consideration of multiple scenarios may be required for such inputs.
Incorporating forward-looking scenarios

- When applying a multiple-scenario approach, care needs to be taken when assigning probability to each scenario as well as when selecting scenarios. Let’s look at an example.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unemployment rate</td>
<td>Scenario probability</td>
<td>Unemployment rate</td>
<td>Scenario probability</td>
</tr>
<tr>
<td>Scenario A</td>
<td>4%</td>
<td>30%</td>
<td>4%</td>
<td>30%</td>
</tr>
<tr>
<td>Scenario B</td>
<td>5%</td>
<td>55%</td>
<td>5.5%</td>
<td>55%</td>
</tr>
<tr>
<td>Scenario C</td>
<td>6%</td>
<td>15%</td>
<td>7.5%</td>
<td>15%</td>
</tr>
</tbody>
</table>

- Expected forecasts of economic scenarios and their associated probabilities are expected to change from one period to another. It is possible, on occasion, that the associated probability of each scenario would remain unchanged but such occasions are expected to be rare.
Key messages

You should “consider” multiple scenarios but may not always have to “use” them.

There is no one right approach but one clear objective.

‘Reasonable and supportable’ information.

Good quality disclosure is important.
Contact us

Keep up to date

@IFRSFoundation

IFRS Foundation
go.ifrs.org

IFRS Foundation

Comment on our work

go.ifrs.org/comment