

134. DSR-Sitzung, 17.08.09

134\_03e\_BNP\_ExpectedCashFlowModel



**IASB Meeting**

**Agenda  
reference**

**2**

**Date June 2009**

---

**Education session by BNP Paribas  
representatives (Peter Philbrick, Eric Boutitie,  
Gerard Gil and Franck Lafforgue):**

**Operational Challenges with the Expected Cash  
Flow Model**

IASB Education Session:

## Operational Challenges with the Expected Cash Flow Model

June 15, 2009



**BNP PARIBAS** | The bank for a changing world

# Summary of the Expected Cash Flow Model

Reference is made to Agenda Papers 5A and 5D from the May 19 Board meeting:

- Initial determination of Effective Interest Rate (EIR) is based on the initial measurement and expected cash flows.
- There is no trigger for an impairment test.
- The measurement of the carrying amount is continuously updated with the expected cash flows reflecting expected losses discounted at the original EIR (for fixed rate instruments), including future credit losses and with no market adjustments.
- Recognition of the impairment is made in the profit and loss statement, with disclosures in the footnotes.
- Subsequent or additional impairments are recognized automatically through continuous re-estimation of cash flows.
- Revenue recognition after impairment is based on the original EIR (for fixed rate instruments), which is compatible with the cost-based measurement objective.
- Reversals are automatic by the adjustment of the expected cash flows, with the upper limit being the full contractual cash flow discounted at the EIR.



# Expected Cash Flow Model and Allowance Account

For illustrative purposes, we present below the consequences of the Expected Cash Flow Model for an entity that would use a separate allowance account for credit losses:

- No allowance is recorded at inception
- The allowance account records the portion of expected credit losses that are deducted from interest income (difference with interest income which would have been recorded using an EIR excluding credit losses).
- When expectations change, the allowance account is adjusted through the profit or loss, so that the net asset reflects the revised expected cash flows discounted at the initial EIR. This could result in a negative allowance (i.e. increase in the gross loan amount) when expectations of credit losses decrease.
- When a credit loss is incurred, the expected cash flow is adjusted to the expected recovery, as it is currently under IAS 39, discounted at the EIR including expected credit losses (this differs from IAS 39). An individual assessment of estimated cash flows, replaces the former statistical-type assessment just as any other change in expectation.
- If no credit loss is incurred, the expected cash flows are revised towards par.



# Application to individual loans: expected credit losses

- The expected cash flow model is based on the effective interest rate (EIR) mechanism as currently defined in IAS 39, except that it does not exclude credit losses from expected cash flows considered in the initial computation at inception.
- Therefore, it can be applied to individual loans, in the same way as the current effective interest rates, excluding credit losses but including prepayments, provided that expected credit losses can be determined.
- Expected credit losses should be determined based on historical data, adjusted to reflect the effects of current conditions.
  - For financial institutions using the Internal Rating Based Advanced (IRBA) internal model for Basel II purposes, the 1 year expected loss might be available at the level of individual loans such as corporate loans, internally rated for probability of default (PD) and individually assessed for loss given default (LGD). Developments of expected loss data to maturity are to be carried out, if the information is not yet ready for economic capital or other internal management purposes.
  - For financial institutions using a standard Basel II approach, or another local regulation, the data collected (or received from the regulator) to report on expected losses could be used and developed to estimate losses up to the maturity.
  - For other constituents, historical experience of losses on receivables could be developed with a level of complexity in line with their limited significance.



# Application to individual loans: operational features

- We believe that applying the expected cash flow model to individual loans is generally appropriate and is the easiest way to apply it, except for high volume-low amount populations, where the cost/benefit considerations lead to a portfolio approach.
- However, applying the model to individual loans requires the development of a system to be able to measure and record the effects of an effective interest rate, while for back-office or tax purposes the contractual interest is also required: in practice, transaction costs or fees received are already recorded as a separate expense/income item spread over the life of the related loans, but credit losses will need to be periodically adjusted with data from the Risk Information System (changes in expected loss due to downgrades, adjustment of model parameters).
- One-off costs to develop and implement over the entire group may not be negligible, and would extend for at least three years (1 year for development and 2 years for deployment), except if some simplifications can be found.
- Running costs depend on the volume of operations and parameters to be processed and stored, which should lead to the processing on an individual basis of only loans to corporate, banks and government institutions.
- Variable rate assets require changing the EIR at each index change, creating an increased processing burden. Simplification needs to be explored.



## Portfolios of high volume, low value items

- For high volume-low amount populations, we believe it is feasible and efficient to group these items into portfolios, which would be processed each like a single loan in the system designed for measuring and recording the effects of the EIR including credit losses for individual loans.
- This objective requires portfolios to be formed around three basic homogeneous elements: risk, period of origination, period of maturity. For IRBA Basel II constituents using pools of similar credit risk characteristics, those could be subdivided by periods of origination and maturity. The Group now uses around 5,000 pools for its retail activities, which could be around 200,000 if so subdivided.
- Changes in expected cash flows would be monitored by portfolio. Items incurring credit losses should be kept in the portfolio, even if for other reasons related to internal organization or management, banks might wish to handle them separately.
- Expected losses to maturity would have to be determined for each portfolio, as well as revised periodically.
- Since such an approach would use the system designed for individual loans, its implementation challenge would concentrate on the portfolio data collected from individual items.



## Possible simplifications

- The approach presented above has followed the “purest” application of the expected cash flow model. However, it may appear complex and costly to implement and to run.
- Simplifications could be achieved, provided that they use sensible approximations.
- In particular a simplified approach could be to consider pools of loans by grouping the already pools of loans found under Basel II that have similar product and credit characteristics, as well as lives. Related expected losses and average lives of the loans in the pools would be used to adjust the interest income, which would have been otherwise recognized. This would build the portfolio allowance account, which credit losses, when incurred, would be booked against.

