

## WHITEPAPER

# Forward-looking Perspective on Impairments using Expected Credit Loss

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### Abstract

As part of a continuous effort to improve financial stability globally, the International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) issued guidance on how to recognize and measure financial instruments. Required in more than 100 countries, all financial entities must incorporate a new expected credit loss model and adhere to new accounting standards within the next few years. Some institutions might face challenges to implement improvements, including incorporation of a logical model for the classification and measurement of financial instruments, and incorporating a forward-looking expected credit loss impairment model. The new accounting standards aim to simplify and strengthen risk measurement and the reporting of financial instruments in an efficient and forward-looking manner. They also have far-reaching impacts on global institutions' accounting practices and performance results, with a shift in how both the risk and finance departments work together.

To address the "too little, too late" problem arising from the incurred loss model, the new accounting standards evoke a "forward-looking" impairment model. This forward-looking approach requires firms to update and recognize expected credit loss (ECL) for financial assets from the initial acquisition or origination date. It is no longer necessary for a credit event to have occurred before impairment losses are recognized. Expected credit loss provides an estimate of the losses based on credit risk of the borrower and can be calculated using various methods. One of the approaches defines the ECL as a probability-weighted estimate of credit losses, or the present value of all cash shortfalls, over the expected life of the financial instrument. A cash shortfall is the difference between cash flows as stated in the contract, and expected cash flows, which incorporate the probability of default. ECL estimation is required to consider the time value of money. Most importantly, the estimation must rely upon the reasonable and supportable information available, including historical, current, and forecasted information.

This paper focuses specifically on the impairment model for the new accounting standards. We discuss the new requirements for measuring the expected loss impairment of financial assets, highlight challenges faced by institutions in interpreting the impairment guidance, and offer advice on how to meet data and modeling requirements for adhering to the impairment standards.

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## Regulation Overview - Measurement of Loss Allowance

### OVERVIEW OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) 9

IFRS 9 requires firms to recognize loss allowance for expected credit losses at each reporting date, and to update the amount of expected credit loss recognized to reflect changes in the credit risk of financial instruments in scope. This new approach represents a significant change from the International Accounting Standard (IAS) 39 incurred loss models, as impairment loss allowance will be recognized for all loans without the "object of impairment evidence."

IFRS 9 provides three approaches for recognizing financial asset impairment:

- » A "three-bucket" approach for regular financial instruments
- » A simplified approach for lease receivables, trade receivables, and contract assets without a significant financing component
- » A special, "credit-adjusted EIR" method for purchased or originated credit-impaired financial instruments

Under the "three-bucket" approach, 12-month expected credit losses are recognized as the loss allowance for all relevant financial instruments which are originated or newly acquired. In future reporting periods, this approach requires assessing credit deterioration of the financial instrument by comparing the credit risk of the financial instrument at the reporting date with the credit risk at the date of initial recognition. To perform this assessment, entities must use the change in lifetime default risk, considering quantitative and/or qualitative information. If there has been a significant increase in the credit risk of a financial instrument, lifetime expected credit losses would then be recognized.

### INTRODUCTION TO CURRENT EXPECTED CREDIT LOSS (CECL)

In June 2016, FASB issued an Accounting Standards Update (ASU) for a current expected credit loss (CECL) model covering recognition and measurement of credit losses for financial assets. The CECL model applies to all entities holding financial assets and net investments in leases.

The new accounting standards focus on improving the measurement and reporting of credit losses, and moving to the measurement of expected credit losses over a financial instrument's lifetime. Unlike the IFRS 9 credit loss model, the CECL model does not determine credit deterioration of the instrument for the recognition of an impairment allowance.

CECL model requirements consider information regarding:

- » Past events, including historical experience
- » Current conditions
- » Reasonable and supportable forecasts
- » Life of loan or life of portfolio loss experience
- » Forecast of future economic conditions and different loans might differ over time based on an institution's forecast of economic conditions

While both IFRS 9 and CECL guidance does not directly prescribe any specific method for calculating expected credit loss, the guidance states the ECL model must use reasonable and supportable forecasts for estimating expected credit losses.

Financial institutions must consider a more robust and sophisticated "expected loss approach" for most portfolios. The expected loss approach breaks the total loss amount modeling into four parts: probability

of default (PD), loss given default (LGD), exposure at default (EAD), and expected life estimation (for the lifetime expected credit loss calculation). Many institutions are considering relying on their existing internal credit risk management systems and expected loss calculation processes used for Basel regulatory requirements, but must modify them to comply with the new accounting standards. These modifications include adjustments to Through-the-Cycle vs. Point-in-Time PD estimates and extending the Basel one-year PD, LGD, and EAD term structures to capture the entire lifetime of the financial instruments. Other institutions might use in-house models and processes for stress testing, and adjust the forecast for the forward-looking scenario rather than stressed scenarios. Estimating "forward-looking," future economic conditions is only the first step of the adjustment process; institutions must develop single or multiple economic scenarios to calculate expected credit loss.

### Comparison of Basel Expected Loss Models and New Accounting Standards

The new impairment accounting treatment has increased convergence between accounting, regulatory standards, and credit risk management practices. When managing regulatory capital standards, the primary input parameters for identifying credit risk are PD, LGD, and EAD models. By making significant adjustments to Basel PD and LGD, these factors can be used in impairment modeling.

The following risk parameters require adjustment under the IFRS 9 guidelines:

Factors Requiring Adjustment	Basel Framework	New Impairment Requirements
Probability of default	Through-the-cycle	Point-in-time based on macroeconomic cycle
Loss given default	Downturn LGD	Point-in-time based on macroeconomic cycle
Time horizon	One year PD	Lifetime PD estimate with extended term structure
Days past due	-	30-days past due rebuttal assumption for Stage 2 classification

The impairment estimation requires models that incorporate current macroeconomic information and forward-looking parameters. Financial institutions are required to develop or enhance their current set of risk-rating models with sufficient granularity to meet audit and regulatory requirements. Additionally, they must demonstrate forecasting capabilities beyond two to three years to be used for calculation of lifetime losses. Unreliable forecasts will result in higher volatility of provisions. Increased expected losses due to the calculation of lifetime losses can place a strain on earnings, resulting in an impact to capital. The new standards of impairment accounting would adversely affect Common Equity Tier 1 (CET1) capital ratio, capital planning, and regulatory capital.

### A Forward-Looking Impairment Model

During the financial crisis, the delayed recognition of credit losses on loans and financial instruments was identified as a weakness in existing accounting standards. The existing incurred loss model recognizes a credit loss in the profit and loss (P&L) account. This approach to recognize losses after they have been incurred on a financial asset has been criticized for being 'too little, too late.' The main objective of the new impairment model is to provide a better understanding of an entity's expected credit losses on financial assets. The expected loss of a financial asset is estimated as the present value of all expected cash shortfalls over the expected life of the asset, and is recognized in the P&L statement. The new impairment model is expected to be implemented for all financial assets, including newly acquired assets.

Institutions must model different segments of their portfolio and apply estimation techniques consistent with the accounting standards. For example, modeling revolving credit loans with prepayments requires modeling additional parameters. The modeling framework requires a consistent approach of applying impairment analysis and forecasting across the entire portfolio.

Lifetime ECL is defined as a "credit loss" estimate of the present value of all cash shortfalls over the expected life of the financial instrument. The cash shortfall is the difference between the present value of the cash flows due to an entity, in accordance with the contract, and the present value of the cash flows that the entity expects to receive. Lifetime expected credit losses result from all possible default events over the expected life of a financial instrument. The "one-year expected credit loss" is the portion of lifetime ECL that results from default events within the year following the reporting date. Hence, the estimate must reflect an unbiased and probability-weighted number of credit losses determined by evaluating a range of possible outcomes. This method follows best practices based on IFRS 9 ECL modeling, and satisfies the criteria for a CECL-compliant impairment model.

The following summarizes the opinions of the IFRS Transition Resource Group for Impairment of Financial Instruments (ITG) on the implementation of the IFRS 9 impairment model:

"To measure expected credit loss, using a single scenario is not sufficient (even the most likely one), one must consider multiple scenarios. The probability of default (PD) and credit loss for a range of different forward-looking scenarios is non-linear. The expected credit losses derived from using a single scenario are not the same as the expected credit losses determined by a range of different, forward-looking scenarios.

To determine significant increase in credit risk (when considering economic scenarios), the PD for each scenario is calculated and weighted by the likelihood of that scenario occurring. To assess whether there has been a significant increase in credit risk for the portfolio, the weighted PD is compared to the PD at initial recognition (similarly probability-weighted if relevant).

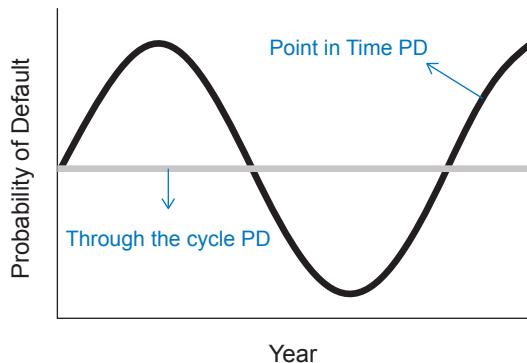
Also to consider, a single, weighted scenario can underestimate the expected credit loss due to the non-linear nature of credit losses."

IFRS 9 standards (Transition Resource Group for Impairment of Financial Instruments, Dec 2015).

For impairment models, there is a need for robust modeling methodology using an institution's internal data or benchmark data or both. It requires data aggregation for modeling and leveraging existing risk-rating models (for example, stress testing models). There is also a need to have a framework to apply qualitative overlay adjustments.

The following details two of the techniques used to address the modeling-related challenges for the impairment module.

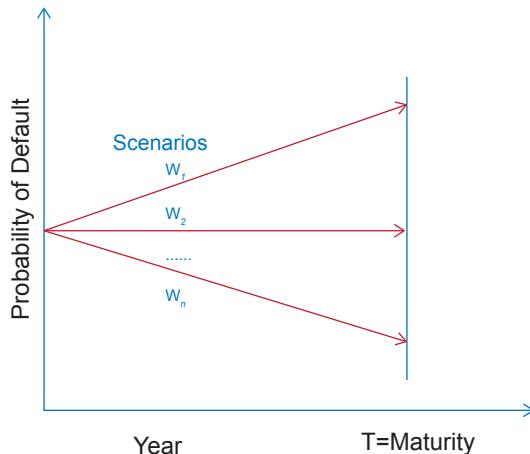
## 1. APPLY CURRENT CREDIT CYCLE ADJUSTMENTS



Through-the-Cycle (TTC) PD vs. Point-in-Time (PIT) PD estimates

When using TTC rating, loan rating might not vary significantly from origination to reporting date since it reflects the long-term average default rate. However, the rating must be adjusted to reflect a point-in-time PD term structure to represent the current macroeconomic conditions. A borrower moves up or down in rating grades through the economic cycle. Point-in-time PD models incorporate information from a current credit cycle and assess risk at a point-in-time. The point-in-time PD term structure can be used to measure credit deterioration and starting PD when performing the allowance calculations. Also, when calculating lifetime expected credit losses, the point-in-time PD term structure must be extrapolated through the loan's maturity. After the inputs are correctly converted, you can project the cash flows and calculate the gross carrying amount, loss allowance, and amortized cost for the financial instrument.

## 2. INCORPORATE SCENARIO-BASED ANALYSIS

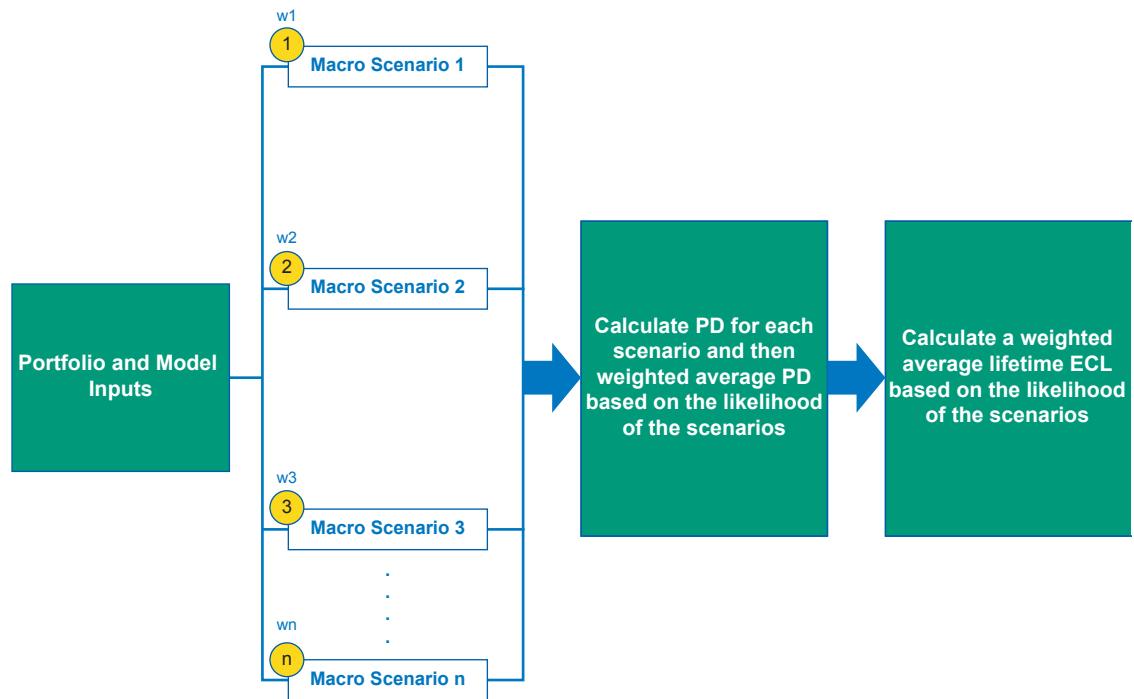


Macroeconomic Scenario-based Expected Credit Loss (ECL) analysis

Including macroeconomic scenario-based analysis gives a forward-looking view due to its range of possible scenarios. The purpose of estimating expected credit losses is not to estimate a worst-case or best-case scenario, but to estimate the possibility that a credit loss occurs with the realization of the most likely scenario. Understanding the risk or probability of a credit loss when incorporating the possibility that a scenario uses weighted probability, even if the possibility of a credit loss occurring is low, can help inform the likelihood of incurring loss. The scenario-based analysis incorporates forward-looking information into the impairment estimation using multiple forward-looking macroeconomic scenarios.

The estimate of expected credit losses must reflect an unbiased probability-weighted amount that is determined by evaluating a range of possible outcomes. For example, when assessing the impact of credit losses in a portfolio against shocks on major macroeconomic indicators (for example, unemployment and GDP), each scenario implies a different path for credit losses. These losses can then be aggregated using the probability of a scenario occurring.

Figure 1: Impairment calculations workflow under multiple scenarios.



## Conclusion

The new impairment accounting standard based on the expected credit loss of a financial asset is a welcome convergence between credit risk management practices and the new accounting standards. The current incurred loss (IL) approach to impairment accounting was reactive in recognizing credit losses. Although the expected credit loss model under the new accounting standards has its share of implementation challenges, the new guideline is a step toward a more proactive and effective loss recognition method.

The core benefits of the impairment model include:

- » Early recognition of expected credit losses and consistency with standardized pricing or valuation of financial instruments
- » Economically relevant and forward-looking approach is closer to the future value concept in determining the initial carrying value of a financial asset
- » Increased transparency and reduced uncertainty over loan valuations enables financial institutions to acquire easy and economical funding
- » Greater convergence with regulatory capital models when considering a few adjustments to existing risk-rating models

Because this convergence comes with certain challenges in terms of pressure on capital ratios due to increased impairment provisioning, financial institutions must assess the degree of impact on their capital and actively create a plan to implement the prescribed models.

## References

- » IFRS 9 guidance on accounting for expected losses issued by the Basel Committee (Feb 2015) BCBS
- » IFRS 9 standards (Transition Resource Group for Impairment of Financial Instruments, Dec 2015).
- » "IFRS 9 Impairment Regulations: Implementation Challenges and Potential Solutions", Moody's Analytics Dec 2015

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