

# Loan Classification & Loss Provisioning: A Primer

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## Introduction<sup>1</sup>

This supervisory guidance note sets out, in summary form, sound internationally accepted banking practices related to loan classification and provisioning practices. It is intended to assist supervisors in understanding what they should expect when carrying out their assessments of a bank's loan classification and loan loss provisioning practices; assist supervisors in encouraging banks to adopt sound risk management practices; and promote consistency in banks' loan classification and provisioning practices.

Poor credit quality continues to be a major factor in bank failures. Sound credit risk assessment and valuation processes, including well-structured loan classification systems and robust loan loss provisioning practices, are critical to a bank's safety and soundness.

In this guidance note, the term 'loan' refers to loans that are carried at amortized cost, and includes any associated legally binding commitments to advance additional funds.

A bank's loan classification system, risk management practices, and provisioning processes are integrally linked. The attributes of the various risk rating grades determine loan pricing, the frequency and intensity of review and analysis, the rigor of oversight, the allowance for loan losses (which should be directly correlated with the level of risk indicated by a loan's assigned risk rating grade), and the amount of regulatory capital required to absorb unexpected losses. Loan classification systems, when integrated with portfolio management and reporting practices, enhance management's ability to detect adverse trends early and make timely, informed decisions.

Risk rating grade assignments are a function of management's view of the credit risk and inherent losses associated with a loan. They are the result of an assessment of the ability and willingness of a borrower to repay all amounts due under the lending agreement, based on an analysis of the borrower's current, and projected financial condition, cash flows, future prospects<sup>2</sup>, as well as the borrower's experience, character, and integrity. Management's view of inherent loan losses also involves an assessment of the readily realizable value of any collateral. The assignment of a rating grade for a borrower during the underwriting process will determine whether or not a loan is approved, and if approved, the maximum amount of the loan, and its terms and conditions.

Advances in loan classification systems and risk rating practices continue to be made to improve the effectiveness of credit risk measurement and management. More recent developments include:

- An increase in the number of rating grades for performing loans to provide for better differentiation of risk;
- A move from single-dimensional<sup>3</sup> to two-dimensional rating systems which explicitly and separately consider (i) borrower risk of default (e.g., the strength of the borrower and its capacity to repay), and (ii) transaction-specific factors (e.g., the structure of the credit facility, including seniority, product type, loss protection provided by collateral or guarantees, and other elements of the loan structure reflective of loss severity). For the borrower risk-of-default

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<sup>1</sup> This note was prepared by Lynn Perry on behalf of Toronto Centre.

<sup>2</sup> For homogeneous groups of small balance loans, the assessment is generally based on payment performance as a proxy for the strength of repayment capacity.

<sup>3</sup> Single-dimensional rating systems focus on borrower risk of default, and may implicitly consider collateral (loss severity) in a single rating.

dimension, separate exposures to the same borrower must be assigned to the same risk rating grade irrespective of any differences in the nature of each specific transaction.<sup>4</sup>

- Improved linkages between risk rating grades and measurable outcomes for probabilities of default and loss (i.e., factoring a more robust basis of alignment of the level of credit risk and inherent losses into rating grade assignments and the level of allowances for loan losses); and
- A broader use of statistical models and methods to assign and confirm risk rating grades, e.g., expanded use of credit scoring models for commercial loans.

## Loan Classification Systems

A loan classification system is an essential part of a bank's credit risk assessment and valuation process—a process that classifies loans and groups of loans having similar credit risk characteristics, according to the level of risk posed. A loan classification system can be used in all aspects of the credit risk management process, including underwriting and approval; monitoring and managing credit quality; early identification of adverse trends, and potentially problem loans; loan loss provisioning; management reporting; and the determination of regulatory capital requirements. Both accounting frameworks and Basel II/III regulatory capital frameworks recognize loan classification systems as acceptable tools for the accurate assessment of credit risk, and in determining groups of loans for collective assessment for loan loss measurement.

If well-structured and systematically applied, a loan classification system can provide a broad understanding of the overall characteristics of loan portfolios and the range of credit risk associated with a bank's lending activities, both current and future. The migration of individual loans to higher risk rating grades, or changes in the composition of a portfolio of loans based on ratings, will make it possible to identify problem loans early, credit risk concentrations, and adverse trends that could impact loan collectability, and therefore, loan valuation.

## Key Elements

### A Series of Credit Risk Rating Grades

A loan classification system comprises a series of rating grades that differentiate the level of credit risk. A bank's loan classification system will vary according to the bank's size, sophistication and complexity, and the nature of its lending activities.

- Large banks that have varied and complex lending activities require loan classification systems with many rating grades. Those banks that use the IRB approach under Basel II/III are subject to rigorous rating system design requirements.<sup>5</sup>
- Less complex and smaller banks typically have simpler systems and fewer rating grades. In the U.S., smaller banks are encouraged to adopt the regulatory classification system<sup>6</sup> as a basis for their own risk rating systems. It consists of five rating categories described under the section *Supervisory assessment of loan classification systems*, below.

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<sup>4</sup> There are two exceptions: the case of country transfer risk where a bank may assign different rating grades depending on whether the loan is denominated in domestic or foreign currency; and, when the treatment of associated guarantees to a loan may be reflected in an adjusted rating grade. For more information, refer to International Convergence of Capital Measurement and Capital Standards, beginning paragraph 397.

<sup>5</sup> Rating system design requirements for the IRB approach under Basel II begin paragraph 90, International Convergence of Capital Measurement and Capital Standards, BCBS, June 2006.

The number of rating grades should be sufficient to provide a clear distinction of credit risk from grade to grade. For example, rating grades may be stratified into broad risk bands—performing, potential problem loans, and impaired loans—having several rating grades within each.

- Performing loans—the series of rating grades in the performing band should range from undoubted loans (e.g., those fully secured by liquid security) to other loans that are fully performing but at consecutively higher levels of risk<sup>6</sup>;
- Potential problem loans—loans developing early warning signs of problems, loans at early stages of delinquency prior to being recognized as impaired and loans having other issues that need closer monitoring and oversight should be separated into different rating grades; and
- Impaired loans—loans requiring specific provisions and other types of remedial actions should be appropriately segregated.

This will ensure that appropriate monitoring and other actions are taken according to risk levels.

It is also good practice to separately classify loans that have been restructured,<sup>7</sup> because in the circumstances that lead to restructuring, these loans are riskier than other performing loans. Performance under the modified terms and conditions requires closer monitoring and oversight, and tracking the concessions that have been granted, and the recurrences of restructuring are important to the loan history; hence, separate classification is warranted.

#### **A Means to Reliably and Consistently Assign Loans to Appropriate Rating Grades**

To promote accuracy and consistency of rating assignments, a bank should have clearly defined criteria governing each credit risk rating grade; this will ensure that loans posing similar levels of credit risk are consistently assigned to the same rating grade. This enables replication—the ability of an independent assessor to understand and confirm rating assignments.

Each individual larger loan should be assigned to a rating grade.

Smaller loans can be grouped by similar credit risk characteristics that indicate the risk of default and loss; this grouping enables classification and provisioning. Examples of such characteristics include borrower type (e.g., age, occupation), loan type (e.g., credit card loans, unsecured consumer loans); collateral type (e.g., residential mortgage loans (first lien or second lien), automobile loans); past due or delinquency status; and other relevant factors that affect repayment, including historical payment performance.

Definitions should include both quantitative elements (e.g., calculated debt service capacity, number of days past due), and qualitative elements based on experienced judgement (e.g., management integrity, experience, willingness to repay), etc. The criteria should be consistent with a bank's internal lending and credit risk management standards.

Examples of criteria used in the definitions of rating grades include:

- Borrower's current financial condition;
- Repayment history and current capacity to pay;

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<sup>6</sup> Basel II IRB approach requires at least seven borrower grades for non-defaulted borrowers.

<sup>7</sup> A restructured loan is one that has had the original terms and conditions changed as a result of borrower difficulty. For example, changes may include a change in maturity, interest rates, payment terms, payment forgiveness, and/or relaxation of covenants.

- The current readily realizable value of collateral; and
- Other borrower and facility characteristics that could affect the prospects for collectability of principal and interest.<sup>8</sup>

It is prudent to look ahead with the definitions by considering factors that may impact collection and the amount of loss, such as changes in future cash flow based on projections under various scenarios, and the sensitivity of collateral to changes in economic and market developments. This approach is prudent and consistent with the Basel II/III expected loss approach.

All loans should be assessed, and assigned to a risk rating grade at the time the loan is granted. All currently available relevant and reliable information on credit quality and collectability should be used to make the assignment.

Rating assignments may be made by the loan officer, or a separate credit function, or jointly to promote objectivity. The individual(s) assigning the rating, and the rationale supporting it, should be clearly documented. This facilitates understanding, review, and verification, as well as the ability to track changes in circumstances that may eventually lead to changes in rating grades.

Rating assignments, and confirmation of assignments may also be made using statistical models or other mechanical methods such as credit scoring models. These have long been used for consumer portfolios to estimate borrower risk. Recently, mechanical scoring systems for commercial loans have been introduced; however, they may not yet incorporate all of the necessary data for robust assignment (e.g., facility structural elements, collateral). Consequently, management's experienced judgement may be necessary to ensure that all relevant, material information outside the scope of the model is taken into account.

Use of models and mechanical methods require careful evaluation and periodic validation on a regular cycle. Model validation includes vetting data inputs for accuracy, completeness, and appropriateness, ensuring data is representative of the population of actual borrowers for which the model is used, and assessing the model's predictive power. Validation should trigger action to manage any differences between expected and actual outcomes outside established internal tolerance limits. Appropriate modifications to the model or its inputs should be made on a timely basis. The validation process and results of each validation exercise should be documented and reported to the appropriate level of management.

An inaccurate rating grade assignment will distort the perceived credit quality of the portfolio, and misinform management action, loan valuation (provisioning), and capital adequacy outcomes. The rating assignment, including those assigned by statistical models and other mechanical means, should be independently tested; rating grade definitions should be periodically back-tested to determine whether they produce anticipated outcomes. Typically, independent testing is done on a sampling basis. Loans selected for sampling will vary, with greater emphasis on those that are larger, more complex, and/or higher risk, or problem loans. The frequency of independent testing will increase as changes occur in the internal or external environment--changes that could impact assessments of the risk of default, and the severity of loss. Modifications required as a result of independent testing should be made on a timely basis, and changes documented, as appropriate.

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<sup>8</sup> Sound credit risk assessment and valuation for loans, BCBS, June 2006, Principle 2

## Regular Review and Update of Loan Classification

A formal review of rating assignments for individual loans, or groups of loans having similar credit risk characteristics, should be carried out regularly (at least annually, and typically at the time of renewal), or whenever significant, relevant new information becomes available.

Reviews should be more frequent for problem loans and:

- For loans that are large, complex, or to new clients;
- For loans that are higher risk, such as loans to borrowers in a troubled industry;
- When general economic or other conditions are stressed, and likely to affect collectability; and
- Where the quality and/or experience of lending personnel warrants more frequent review.

In some circumstances, smaller performing loans posing less risk may be reviewed on an exception basis for efficiency purposes (i.e., it is not efficient or effective to regularly review each small loan that is performing well; however, management should be cognizant of the assumptions supporting their assessment of the level of risk associated with such loans, and the type of changing circumstances that could affect borrower default, or loss severity of such borrowers to trigger review).

For each group of loans having common credit risk characteristics, an annual review of loss characteristics and delinquency status of the group, as well as the status of individual borrowers in the group, should be undertaken to confirm the risk rating, and to ensure individual loans continue to be assigned to the appropriate group. Such reviews can be achieved by review of a representative sample of loans in each group.

Reports on the details of the loan reviews should be maintained in order to track the changes and trends in credit quality. The timing and personnel involved should also be documented.

## Regular Portfolio Monitoring and Identification of Problem Loans

Integration of a bank's loan classification system, with its credit portfolio management processes, provides for effective ongoing monitoring and analysis of portfolio credit quality. Focus should be on early identification of adverse trends and potential problem loans, so timely action can be taken.

The identification of potential problem loans should be based on well-defined criteria that reflect the current financial condition of the borrower and collectability of the loan. Criteria should identify changes in those criteria that have been used to assess loans, and assign rating grades (as described under the section *A, means to reliably and consistently assign loans to appropriate rating grades*, above).

Conditions for impairment as set out below in section, *Reviewing loans and identifying impairment*, below, can be adapted for early recognition of potential problem loans. Examples include:

- Financial statements demonstrating a decline in the borrower's financial condition, repayment capacity, or liquidity position;
- Payment delinquency;
- Breach of debt covenants on existing obligations;
- Significant decline in value of underlying collateral; and
- Derogatory information on independent credit reports concerning the borrower's ability to meet continuing obligations, or downgrades in credit status of the borrower by a recognized credit rating agency.

The rationale supporting rating grade changes should be clearly documented. Similar to update reviews, reports on the details of the portfolio reviews should be maintained to track changes and trends in credit quality. The timing and personnel involved should also be documented.

Timely reporting to senior management and the board on the results of reviews supports decision-making at both the credit risk management, as well as the strategic level. The same information should be used to monitor the condition of the loan portfolios, to determine loan loss provisions, and for accounting, and capital adequacy purposes.

### **Supervisory Assessment of Loan Classification Systems**

Because of the importance of a bank's loan classification system to credit risk valuation (provisioning), accounting, and capital adequacy, supervisors should directly, and on a periodic basis, evaluate their effectiveness.

In Canada and the U.S., supervisors gain direct assurances about the integrity of a bank's loan classification system and the appropriateness of the credit risk assessment, classification, and valuation practices, as well as the adequacy of documentation, by reviewing a sample of individual loans. The approaches to the review of risk rating assignments in Canada and the U.S. differ:

- In Canada, supervisors attempt to replicate rating assignments for a sample of loans using the bank's internal rating grade definitions.
- In the U.S., supervisors assess and assign one of five defined regulatory rating grades to the loans selected for review, then compare the bank's internal risk ratings with those assigned by the regulatory agency.

The rating grades used by regulatory agencies in the U.S. are special mention, substandard, doubtful, and loss. Loans not covered by these definitions are considered "pass", which is not formally defined. The categories reflect different levels of credit risk/degrees of credit weakness. The ratings apply to all types of credit exposures including commercial and retail loans. The U.S. regulatory approach, with rating definitions and examples of credit risk factors that characterize the various rating grades, can be found in the Comptroller's Handbook: Rating Credit Risk, beginning page 13.

In both Canada and the U.S., where supervisory analyses concur with the outcomes of a bank's processes, a higher degree of reliance can be placed on the bank's processes for assessing the overall quality of the loan portfolios, the adequacy of loan loss provisions and allowances, and ultimately, in the assessment of capital adequacy.

Concern is elevated when credit risk is understated. Where supervisors identify significant issues, such as weaknesses or deficiencies in the loan classification and provisioning processes, they will investigate the root cause for the issues and may increase the sample size. Supervisors will also recommend that management resolve the issues on a timely basis, and consider whether the deficiencies should be reflected in other supervisory actions, including a higher capital requirement.

More detail on credit risk rating systems and the examination of risk rating processes of U.S. banks can be found in the Comptroller's Handbook, Rating Credit Risk, April 2001 (updated 2012).

## **Loan Loss Provisioning**

Sound loan loss provisioning practices are also an integral part of the credit risk assessment and valuation process—a means to ensure loans and groups of loans having similar credit risk characteristics are appropriately valued for credit risk management, accounting, and capital adequacy purposes.

A loan is considered impaired<sup>9</sup> when, in management's opinion, there has been a deterioration in credit quality to the extent that the bank no longer has reasonable assurance as to the collection in full of amounts due under the contractual agreement, or generally, when the loan is contractually 90 days in arrears. Criteria for impairment are provided below under the section, *Reviewing loans and identifying impairment*.

This section describes sound, internationally accepted practices related to key elements of the process: loan review and impairment identification; loan loss measurement; and recognition of impairment for balance sheet and income statement purposes. The section also covers treatment of interest, and other payments received on impaired loans, and work out, and write-off practices.

## Key Elements

### Reviewing Loans and Identifying Impairment

All loans in all credit risk rating grades, including groups of loans having similar credit risk characteristics, should be reviewed for deterioration in credit quality at the end of each reporting period,<sup>10</sup> based on all currently available, relevant information.

Individually significant loans should be assessed individually.

Loans that are not individually significant can be assessed individually, or collectively. Small loans can be grouped for collective assessment on the same basis as that established by a bank's loan classification system (as described under the section A, *means to reliably and consistently assign loans to appropriate rating grades*, above).

Currently, there are different requirements governing the identification of impairment under accounting frameworks<sup>11</sup> and regulatory standards that result in differences in loan loss estimates. Prudential standards are based on expected loss; accounting standards under IFRS are based on incurred loss. Generally, application of the expected-loss approach produces a more prudent perspective, resulting in higher, forward-looking provisioning levels.

In the aftermath of the financial crisis, it was determined that many banks in Europe were strictly following the incurred loss approach of IFRS, and were significantly under-provisioned as a result. Subsequently, accounting standard-setters and regulatory bodies have been working to align regulatory and accounting standards to promote stronger provisioning practices. In 2018, IAS 39 is expected to be replaced by IFRS 9, which will adopt the expected-loss approach for accounting. In the interim, it is important to understand the differences and their impact.

### Accounting Method (IFRS)

Under IFRS IAS 39, the following dictates identification of impairment:

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<sup>9</sup> The term 'impaired' is now commonly used because of IFRS language, although IFRS does not define the term. For clarity, the term 'nonperforming' has a history of being defined differently by different banks, to cover loans ranging from 30 days past due to the status defined above as impaired, although the 90-day threshold has become generally accepted.

<sup>10</sup> Potential problem loans and groups of loans having similar risk characteristics identified through the loan assessment, classification and monitoring processes should be assessed for impairment between reporting periods, as appropriate, to enable appropriate management and timely valuation.

<sup>11</sup> In particular, IAS 39, Financial Instruments: Measurement and Recognition as it relates to financial instruments carried at amortized cost (i.e., loans).

- There must be objective evidence of impairment losses as a result of one or more loss events that occurred after initial recognition of the loan.<sup>12</sup>
- The loss event(s) has an impact on the estimated future cash flows of the loan that can be reliably estimated.
- For groups of loans having similar credit risk characteristics, the concept of incurred-but-not-reported losses is accepted--provisions can be made for losses that have not yet occurred, but are likely to have been incurred at balance sheet date based on past experience.<sup>13</sup>
- Losses expected as a result of future events, no matter how likely, are not recognized.<sup>14</sup>

Objective evidence of impairment includes all significant and relevant, observable data that comes to the attention of the bank about the following loss events.<sup>15</sup>

For individually assessed loans,<sup>16</sup> this includes:

- Significant financial difficulty of the borrower;
- Breach of contract, e.g., default or delinquency of interest, or principal, payments;
- A concession is granted by the lender to a borrower for economic or legal reasons, relating to the borrower's financial difficulty, that the lender would not otherwise consider; and
- Probable bankruptcy, or other financial reorganization of the borrower.

For collectively assessed loans, objective evidence of impairment also includes indications of a measurable decrease in the estimated future cash flows from a group of loans since initial recognition of those loans, although the decrease cannot yet be identified with individual loans in the group. For example:

- Adverse changes in the payment status of borrowers in the group (e.g., an increased number of delayed payments, or an increased number of credit card borrowers who have reached their credit limit, and are paying the minimum monthly amount); or
- National or local economic conditions that impact defaults, (e.g., increase in unemployment rates; decrease in property prices; or adverse changes in industry conditions that affect the borrowers in the group)

Most regulators have added the following criteria, which is considered to be consistent with IAS 39:

- A payment on a restructured loan is 90 days in arrears;
- A payment on any other loan (except credit card loans) is contractually 90 days in arrears, unless the loan is fully secured, collection of debt is in process, and collection efforts are expected to result in repayment of the debt, or in restoring it to current status within 180 days from the date a payment became contractually in arrears;
- A payment on any loan is 180 days in arrears; or
- Any credit card loan that has a payment 180 days in arrears should be written off.

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<sup>12</sup> For an easier read, the term “financial asset” in IAS 39 is replaced by “loan,” which is a financial asset carried at amortized cost (i.e., loans.)

<sup>13</sup> A bank must demonstrate a trigger event had occurred before balance sheet date that caused impairment.

<sup>14</sup> IAS 39.59

<sup>15</sup> Events that may affect collectability of the loan, in full, in accordance with the contractual obligations are taken from IAS 39.59 and 30.62.

<sup>16</sup> These factors are relevant to both Basel II and accounting frameworks.

## Regulatory Method

For prudential purposes, including for the determination of required capital under Basel II/III, loans are considered impaired on the basis of expected loss. The approach is forward-looking, and considers the projected performance in the foreseeable future (not less than one year), as well as a number of scenarios of what could potentially go wrong (e.g., a 12-month stressed probability of default and a downturn loss given default). This information drives the provisioning process, and determination of required capital. The expected loss approach captures actual losses earlier, is considered less pro-cyclical than the incurred loss approach, and typically results in higher levels of provisions. The expected loss approach underpins the loan classification systems in many jurisdictions, as described under the section *A, means to reliably and consistently assign loans to appropriate rating grades*, above.

## Key Differences and Reconciliation

Because the IFRS requires that losses resulting from future events, no matter how likely they are, will not be recognized, loan loss estimates have varied. An observable loss event has to have occurred, and adversely impacted estimated future cash flows.

When banks use regulatory standards (expected loss) to assess credit risk management and capital adequacy, and use IFRS (incurred loss) for financial reporting, the differences between these methods do not result in a separate loan loss provision. Instead, the differences between accounting loan loss estimates and Basel II/III loan loss estimates are reconciled through a deduction from, or addition to, regulatory capital (e.g., regulatory provisions in excess of accounting provisions are deducted from regulatory capital.)<sup>17</sup>

## Measurement of Impairment

Under both accounting and regulatory frameworks, if there is objective evidence of impairment for an individually assessed loan, whether the loan is significant or not, the amount of loss is estimated according to the method set out below.

If there is no objective evidence of impairment for a loan that is individually assessed (significant or not), it should be included in a group of loans with similar credit risk characteristics, and collectively assessed for impairment. Impairment may be evident in a group of similar loans, even though observable data at that time may not indicate impairment of any individual loan in the group.

If a loan already has an impairment loss as a result of a prior review, it should not be included in the collective assessment.

If a bank does not have a group of loans with similar risk characteristics, it should not make a collective assessment for impairment for the loan.

The following key aspects of the mechanics of measurement are consistent for both accounting and regulatory purposes; however, because there is conflict in the criteria for the identification of impairment, measurement estimates may differ, as described above. For accounting purposes, future credit losses that have not been incurred are excluded. For regulatory purposes, expected losses are considered.

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<sup>17</sup> Additional detail on capital adjustments can be found in International Convergence of Capital Measurement and Capital Standards, June 2006, beginning paragraph 384.

## Individually Assessed Loans

The amount of loss for an individually assessed, impaired loan is measured as the difference between the loan's carrying amount (including accrued interest), and the present value of estimated future cash flows (including principal, interest, and cash flows arising from the realization of collateral, less costs of disposition), discounted at the loan's original effective interest rate (original contractual rate).

- If a loan has a variable rate of interest, the discount rate for measuring any impairment is the current, effective interest rate determined under the contract.
- If the terms of a loan have been renegotiated, or altered because of financial difficulties of the borrower (i.e., restructured), impairment is measured using the original effective rate of interest before the modification of terms.

For collateral dependent loans, where there is an observable market price for collateral, fair value may be used to measure impairment. For example, the loss on a residential mortgage loan may be estimated on the basis of future cash flows from foreclosure, less related costs.

If the measurement process results in a range of possible impairment amounts, the best estimate<sup>18</sup> in the range should be recognized, considering all relevant information.

## Collectively Assessed Loans

Both regulatory and accounting frameworks use internal risk rating grades to group loans for collective assessment and loan loss measurement--grouping based on distinctive, defined credit risk characteristics that affect collectability. There is uncertainty about both the methodology, and the assumptions used to calculate collective impairment--it is impractical to review insignificant loans in the group on a loan-by-loan basis to identify individual losses. Significant judgement is required.

The collective assessment of impairment for each group of loans with similar credit risk characteristics should incorporate:

- Historical loss experience, adjusted to reflect current trends and changes in conditions, both external and internal, affecting that group, and to remove the effects of conditions in the historical period that do not currently exist;
  - Where a bank does not have sufficient loss experience of its own, peer group experience for comparable groups of loans may be used.
- All other currently available, reliable data, including internal and external factors, that may affect collectability of that group at valuation date; as well, management's experienced judgement about the level of impairment losses based on historical experience, current credit quality and trends must be considered.<sup>19</sup>
- A process to back-test and make adjustments to the estimation method to reduce the differences between estimated losses and actual loss experience;
- Reasonable and supportable assumptions, and adequate documentation; and
- A process to regularly (at least quarterly) review collective allowances in light of changing conditions and new information that may be more representative of losses (e.g., increased delinquencies), and to adjust collective allowances, as appropriate.

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<sup>18</sup> IAS 37.39 provides guidance on determining best estimate.

<sup>19</sup> Use of judgements and scope of discretion should be prudent, subject to established policies and practices, and supporting assumptions, should be well documented.

The method a bank uses to determine historical loss experience can vary from an average of historical loss (annualized historical gross loan write-offs, less recovery over a relevant credit cycle<sup>20</sup>), to formula-based approaches, to complex migration analysis, or other statistical techniques; these provide a reasonable estimate of unconfirmed losses that probably exist in the group at valuation date.

The method should be used consistently to determine loan losses for credit risk assessment, accounting, and capital adequacy purposes.

Examples of adjustments to historical loss experience of each group of loans include:

- External conditions: unemployment rates, property prices; business or industry conditions, or other economic or geographic factors indicative of incurred losses in the group.
- Internal conditions: changes in credit risk management policies and practices; changes in credit concentrations, increased volume of delinquencies or restructurings, and other portfolio trends; changes in the depth of experience and capability of lending; credit risk management personnel; and changes in products or market segments.

Adjustments should be made on a group-by-group basis, using relevant factors affecting collectability of the underlying group.

### **Recognition of Impairment**

Once an impairment loss has been measured, it should be recognized in a timely manner for income (profit and loss) statement and balance sheet purposes.

- Losses are recognized in the income statement through a provision for loan losses; and
- The balance sheet carrying the value of the impaired loan, or group of loans having common credit risk characteristics, is reduced by the estimate of uncollectible amounts.

Banks should be encouraged to record losses (and recoveries) through an allowance account (balance sheet account), in order to maintain a record of write-offs and recoveries.

In all, the aggregate of individual and collective allowances should, in accordance with sound credit risk assessment and valuation principles, reflect estimated credit losses in a bank's loan portfolios, and associated legally binding commitments to advance additional funds. The level of an allowance should be correlated with the level of credit risk indicated by the rating grade of the loan or group of loans.

### **Individual Allowances**

Individual allowances recognize estimated impairment losses associated with an individual loan. Individual allowances should be reviewed and reassessed quarterly and adjusted, based on any changes in management's estimate of future cash flows.

### **Collective Allowances**

A collective allowance represents management's estimate of losses in a group of loans that have similar credit risk characteristics, where the losses have not yet been identified with an individually impaired loan

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<sup>20</sup> Ideally, the loss rate period should cover a full credit cycle; however, management may determine, based on its experienced judgement, that a different period may yield reliable rates.

in the group. Collective allowances recognize that there is a period of time between when a loss event occurs, and when management is able to identify that event.

Once specific evidence of impairment becomes available for an individual loan in a group, the loan should be removed from the group and an individual allowance should be established for it.

Collective allowances should also be reviewed quarterly. Changes should be systematic and rational, and supported by observable changes in the identified components of impairment. Collective allowances will fluctuate with changes in the size and composition of the portfolio and the state of the external environment, as well as with the effectiveness of a bank's credit risk management policies and practices. Collective allowances will typically increase as portfolios grow, if credit standards relax, and as economic conditions deteriorate. In any event, in all economic conditions, the level of collective allowances should reflect the risk profile of the associated portfolios.

### Reversal of Impairment

If an observable event or new information reduces the amount of an impairment loss after it has been recognized, the previously recognized impairment loss should be reversed, and recognized in profit and loss.<sup>21</sup> The reversal must not result in a carrying value for the loan that exceeds what the amortized cost would have been had no impairment been recognized at the date the impairment is reversed.

### Reclassification as Performing

A loan may be reclassified as performing when all of the criteria for impairment have been remedied. That is:

- All arrears have been cleared and the loan has been brought fully current;
- Repayments have been made in a timely manner over a continuous repayment period; and
- Continued collection in full is expected in accordance with contractual terms based on a well-documented assessment of the borrower's financial condition.

For **restructured** loans, the same criteria apply, with the additional criterion that a minimum period of sustained performance under the revised contractual agreement must be fulfilled. The acceptable length of sustainable performance varies in practice, from a minimum of six months in the U.S. to a two-year probation period under the European Banking Authority's new technical standards.

A **restructured** loan should continue to be classified separately from other performing loans in the loan classification system to ensure its identity and history are not lost, and it receives adequate oversight. Refer to the section A, *series of credit risk rating grades*, above.

### Interest Accrual

There is general international acceptance of the practice of continuing to accrue interest on an impaired loan.<sup>22</sup> While this will increase the carrying value of a loan, appropriate adjustment will be made upon regular review of its loss allowance.

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<sup>21</sup> The adjustment can be made directly through profit and loss, but banks should be encouraged to use an allowance account to record such recoveries, as described earlier.

<sup>22</sup> In the U.S., interest accrual is suspended upon impairment.

## Income Recognition Subsequent to Impairment

Payments received on an impaired loan, whether interest or principle, should reduce the carrying value of the loan unless the loan has been written off, in which case, the payments are credited to the allowance account as a recovery.

## Workout Programs

A bank should have well-established policies and practices to manage problem or impaired loans, and collect past due amounts. Early intervention, and proper analysis and planning, can minimize losses. A bank's approach will depend on its size and available resources.

Initial management of such loans may be most effective if the originating business line works with the borrower and follows established remediation and collection practices. If available and warranted, the business line may be supported by a specialized workout group in developing a strategy at early stages of credit weakness to return a troubled borrower to financial health, saving time, optimizing returns, and building stronger borrower relationships.

However, for loans having significant credit-related problems, minimizing losses may be most successful if responsibility is assigned to a specialized workout group that has the time, objectivity, focus, skills and expertise to develop well-considered rehabilitation, restructuring, or exit strategies for each individual loan. The originating business should continue to bear the financial responsibility for losses, since this reinforces accountability for credit quality.

Post-mortem reviews of problem/impaired loans and loan losses, in order to understand their cause, and to recommend appropriate amendments to policies and practices, is an important value added. For example, for larger loans, the post-mortem analysis should include the credit risk characteristics and financial condition of the borrower at origination, identification of any deviations from underwriting guidelines, the timeliness of problem identification, the accuracy of collateral valuation, the terms and covenants of the loan structure, and the adequacy of documentation.

## Write-off of Loans

A loan should be written-off against the related allowance when it is considered uncollectible, i.e., there is no realistic prospect of recovery. Circumstances may include protracted delinquency, or bankruptcy for unsecured loans, a deficient balance following realization of collateral, or receipt of loss-confirming borrower-specific information, (e.g., death of a borrower.)

If a loan is secured, it is generally written-off after receipt of the net proceeds from the realization of collateral. Where the net realizable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier.

For collectively assessed groups of retail loans, write-offs are typically based on established thresholds: 180 days past due for credit cards; personal loans are generally written off after 150 days.

Banks should be encouraged to write-off fully provisioned impaired loans so as to not distort their financial statements.

## Information Systems and Reporting

Senior management and the board require timely, comprehensive reporting for decision-making purposes. Information on the credit quality of portfolios, composition by risk rating grades, provision and allowance

levels, significant changes or adverse trends, and the results of independent reviews, enable timely and prudent actions.

The quality and comprehensiveness of reporting relies heavily on the capability and rigor of information systems, and surrounding controls supporting the credit risk assessment and valuation process. For example, capability to:

- Carry-out all computational, analytical, monitoring, historical recordkeeping, and reporting for all levels of operational and senior management and the board;
- Provide reliable and timely information on changing conditions in the external<sup>23</sup> and internal<sup>24</sup> environment that could affect credit quality, and trends in portfolio quality; and
- Support detailed requirements such as the generation of information to calculate statistics: number of loans being downgraded more than one rating grade; the length of time loans stay in one rating grade; the rate of change of rating grades; (i.e., how quickly loans are changed from one rating grade to another); and default and loss history by rating grade.

Information systems should be integrated with other risk management and financial and capital management systems to receive and provide accurate, timely and consistent information. They should be supported by sound internal controls that provide assurances regarding the reliability and integrity of data inputs and outputs, and compliance with internal policies and practices, regulatory standards, and relevant accounting frameworks.

## Independent Review and Validation

Senior management and the board require regular assurance as to the effectiveness of, and adherence to, approved policies and practices related to credit risk assessment and valuation practices, in order to fulfill their oversight responsibilities. Assurances are typically provided by a qualified, independent internal loan review and audit function, supplemented with work done by external auditors, as well as work carried out by other independent oversight functions.

Independent loan reviews should be comprehensive and robust, and comprise adequate testing of all critical aspects of the credit risk assessment and valuation process.

For loan classification systems, this includes such things as internal compliance with credit risk grading definitions; the ongoing accuracy and integrity of rating assignments based on outcomes; reasonableness and completeness of risk rating data, definitions, and documentation; the extent of understanding, use, and support for the loan classification system by both credit risk, financial management, and capital management personnel; the appropriateness of incentive structures and compensation programs to prevent understatement of risk; the rigor and timeliness of loan and portfolio reviews, recognition of problem loans and appropriateness of actions taken; and the comprehensiveness and timeliness of reporting to senior management and the board.

For loan loss provisioning processes, this includes such things as the timeliness of identification of impairment; the robustness of provisioning methodology and practices, assumptions, and outputs; the adequacy of allowances for credit losses for groups of loans having similar risk characteristics, and on individual loans tested, including updated valuation of collateral and cash flow predictions based on current assessment of economic conditions; support for the adequacy of the aggregate level of individual and collective allowances to absorb estimated credit losses in the portfolios; the effectiveness of and

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<sup>23</sup> Factors include industry, geographical, economic, competitive, and political factors.

<sup>24</sup> Factors include the quality and experience of lenders and credit risk personnel and practices.

adherence to supporting internal controls; the effectiveness of other control functions (such as the loan review function); validation of data inputs into credit risk information systems; robustness of information systems; the ongoing accuracy and reliability of process outcomes; and, the comprehensiveness of reporting.

Where statistical or scoring models are used for rating assignment or provisioning, independent reviews should periodically assess the effectiveness of internal validation processes that test the completeness, accuracy, and appropriateness of data inputs and assumptions, compare inputs with outcomes to confirm predictive power, and test the sufficiency of documentation related to the assumptions and underlying theory/mathematics of the model.

The results of independent review should be reported to those responsible for the loan assessment and valuation process, as well as periodic reporting to senior management and the board on the key findings of the reviews.

If supervisors determine that the independent oversight functions are appropriately capable, and their work is sufficiently comprehensive and robust, they may use the results of their work as input into their assessments. This does not preclude periodic direct testing by supervisors to confirm the ability to use the results.

## Conclusion

In conclusion, senior management and the board are responsible for ensuring that a bank's credit risk assessment, and valuation policies and practices are robust and consistent with applicable accounting framework and regulatory standards. They require comprehensive and timely reporting to fulfill these responsibilities. They need to understand the composition and credit quality of the bank's portfolios, trends or changing circumstances, and how these relate to the level of individual and collective allowances.

Board-approved policies and practices should be rigorous, documented, understood, and followed. Information systems should have the capability to monitor, analyse, and report on numerous information needs. There should also be effective checks and balances to support the rigor of the process: appropriate internal controls and regular review within the lending activity, and periodic independent reviews to assess the integrity of the process and its key elements.

Supervisors should satisfy themselves that banks have adequate, effective and consistently applied policies and practices to evaluate the credit quality of loans, and confirm the adequacy of loan loss provisions and allowances as part of their assessment of the bank's financial condition and risk profile. Assurances can be gained from an assessment of key aspects of a loan classification system and loan loss provisioning practices in the context of the bank, and the results of independent reviews carried out by internal audit, external audit, or other qualified independent oversight functions.

More information on supervisory assessments can be found in various referenced documents: BCBS Sound Credit Risk Assessment and Valuation for Loans, Principles 8–10 and Principles for the Management of Credit Risk, Principle 17; OCC Handbook Rating Credit Risk, beginning page 11, and Allowance for Loan and Lease Losses, beginning page 17; OSFI Guideline Collective Allowances, Annex 1.

## References

### Basel Committee on Banking Supervision

- Sound credit risk assessment and valuation for loans, June 2006
- Principles for the Management of Credit Risk, September 2000
- International Convergence of Capital Measurement and Capital Standards, June 2006

### OCC Comptroller's Handbook

- Rating Credit Risk, updated May 2012
- Allowances for Loan and Lease Losses, updated May 2012
- Loan Portfolio Management, updated May 2012

### International Financial Reporting Standards, IAS 39

### OSFI Guidelines

- Impairment--Sound Credit Risk Assessment and Valuation of Financial Instruments at Amortized Cost, Revised July 2010
- Collective Allowances--Sound Credit Risk Assessment and Valuation of Financial Instruments at Amortized Cost, Revised July 2010

### European Banking Authority

- Implementing Technical Standards on Supervisory Reporting on Forbearance and Non performing Exposures <http://www.eba.europa.eu/documents/10180/449824/EBA-ITS-2013-03+Final+draft+ITS+on+Forbearance+and+Non-performing+exposures.pdf/a55b9933-be43-4cae-b872-9184c90135b9>