Recognition, Disclosure and Management of Credit Risk in Banking: Credit Impairment Model

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Abstract

In the background of increasing stressed assets in the banking sector, regulators around the globe are looking into the possibility of adapting different credit impairment models by the banks. This paper details the problem and the recognition, disclosure and proper management of credit risk in Indian banking sector by taking into account the development of credit impairment models as detailed by FASB, IASB, IFRS and Ind AS.

Keywords: Banking, Credit Impairment Model, Credit Risk, Expected Credit Loss, IFRS, Ind-AS, Loss Provisioning

1. Background

A robust and well-capitalized banking sector supports capital formation and economic activity by facilitating intermediation of resources between savers and borrowers by 1. Raising finance through deposit taking, wholesale funding and shareholder capital, and 2. Lending, which is major source of credit risk. India saves close to 30% of its annual output. Given the importance of the banking sector in the financial system, it has a crucial role to play in channelling these savings to productive investments. Commercial bank loan portfolios consist to a large degree of mortgage loans, consumer loans and corporate loans besides loans to SMEs and real estates. The mounting stock of bad loans, which amounts to over Rs.7 trillion, suggests that something has gone wrong with the process of financial intermediation in the banking sector and needs to be fixed.

The Indian banking sector is dominated by Public Sector Banks (PSBs) with a market share of roughly 70% of total banking assets. There has been little dynamism in the banking sector in recent decades. PSBs remain the biggest contributors to the large and rising stock of Non-Performing Assets (NPAs), with a share of approximately 90% of the total stock. Rising NPAs have put a strain on the health of PSBs, reflected in their declining profitability ratios which turned negative in 2016 for the first time in a decade.

The deteriorating health of PSBs has adversely affected their ability to lend. Even though non-food bank credit growth has recovered, growth of bank credit to the industrial sector remains subdued. Within the industrial sector, credit to medium enterprises continues to decline while growth in credit to large enterprises is barely positive. It will be difficult for the banking system to support high growth, especially in the industrial sector, if the growth in NPAs is not checked.

The problem of NPAs or bad loans of banks has been addressed holistically through transparent and realistic recognition of NPAs, provision for expected losses and unprecedented recapitalisation, and putting in place a clean recovery system, enactment of IBC among others.

Looking at the recent banking fraud, the case in point is PNB, which lost about a third of its

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market value and faced rating downgrades since disclosing the scam, when it alleged that a rogue employee provided fake guarantees worth $2 billion to a couple of jewellers, which they used to obtain loans from abroad. The news has triggered a wave of finger pointing and regulatory tightening across the industry.

Shares of PNB sank the most since 2004 on Tuesday and hover near a 20-month low, pacing losses among state-run lenders, after regulators asked all government-owned banks to review bad loans above Rs 50 crore ($7.7 million) for fraud. It all says that there is need for relooking at the risk governance architecture.

State Bank of India also posted its first loss in at least 17 years last quarter as provisions surged. The lender said an audit by the central bank showed soured debt was about Rs.23,200 crores higher than what SBI had reported as of end-March 2017.

"Credit risk is a known devil which at worst you might underestimate," commented the chief of SBI. "But if you don't take care of your operational risks, it can hit you very hard on the face when least expected." Credit risk was at the heart of the global financial crisis (GFC-2009). Post GFC, regulators have increased risk model requirements, and rigorous standards are being implemented globally such as:

- Implementation of BASEL III.
- Stress testing for all risk models.
- Consistence across financial institutions and instruments globally.
- Strengthening of financial markets.
- More data and information (KYC) are collected and made available to credit risk analysts that could improve transparency.
- Increased bank efficiency, competition, deregulation and simplification.

2. Recognition, Disclosure and Management of Credit Risk (IFRS 9 and Ind AS 109)

Credit losses are part and parcel of doing any business, however it is important to consider, when to reflect such losses in the financial statement whether it should be recognized, when loss events indicators are visible or whether an entity needs to estimate the probable loss based on history of losses accounted in the financial statement. One of the lessons of the financial crisis was that the pre-crisis accounting model for impairment waited for the impairment to be incurred before requiring a loss allowance thereon and was criticised for being a "too little, too late" approach.

In order to address this issue, as a part of its project to replace IAS 39, the IASB developed a forward looking "Expected Credit Loss" (ECL) framework for recognising impairment on financial assets. Unlike IAS 39, where an entity only considers those losses that arise from past events and current conditions, IFRS 9 broadens the spectrum by requiring an entity to base its measurement of expected credit losses on reasonable and supportable information that is available without undue cost or effort, and that includes historical, current and forecast information. The IFRS 9 ECL requirements, which have been incorporated without any significant change in Ind AS 109, also represents a paradigm shift from current practice in the Indian banking industry which follows Income Recognition, Asset Classification and Provisioning (IRACP) norms prescribed by the Reserve Bank.

3. Expected Credit Loss

Credit losses are defined as the difference between the contractual cash flow due to the entity and cash flow that entity expect to receive. This difference is discounted either at original effective interest rate or any other appropriate adjusted discounted rate. Entity can estimate various possible outcome for the cashflow it expects to receive, wherein entity need to define each probable output with its weight which gives us probability weighted output to assess expected credit loss.

4. Applicability

Credit loss is generally reflected in almost all financial statements. New credit impaired model would cover all entities, given that entities have

contractual receivables or recovery from other entities. However, it has a significant impact on financial institutions like banks and NBFCs. Financial assets on which ECL will apply includes – 1. Debtors, 2. Loans given to group companies/ inter corporate loans, 3. Any debt investments, 4. Loan commitments, 5. Financial guarantee contracts and 6. Lease receivables, etc.

5. Need for a New Credit Impairment Model

Credit loss provisioning approach has now moved from incurred to expected loss model, which means an entity needs to understand the significance of credit risk and its movement since its initial recognition. Thus, new model will ensure (a) timely recognition of ECLs, (b) assessment of significant increase in credit risk which will provide better disclosure, (c) ascertainment of better business ratios. The need of expected credit loss model was established post global crises and it provides better advanced information to the investors.

Ind AS 109 specifies three approaches for computation of ECL, which are:

- **Simplified approach**: To be applied in measuring ECL on trade and lease receivables, entities are required to compute lifetime expected credit losses for these assets;
- **General approach**: Applied in measuring ECL for other financial assets which are not

credit impaired on initial recognition. Under this approach entities are required to assess the stage allocation of the asset for computing either 12 month or lifetime ECL; and

- **Change in lifetime expected credit loss approach**: Applicable to assets that are credit-impaired on original recognition (Purchased or Originated Credit impaired (POCI) assets). Entities are required to recognise change in lifetime expected losses

6. The Model

The IFRS 9 ECL requirements are applicable to all financial assets classified under amortised cost, FVOCI (Fair Value through Other Comprehensive Income), lease receivables, trade receivables, commitments to lend money and financial guarantee contracts. Initially, on origination or purchase of a financial instrument, 12-month expected credit losses are recognised in profit or loss and a loss allowance is established (Stage 1). Subsequently, if the credit risk increases significantly and the resulting credit quality is not considered to be low credit risk, full lifetime expected credit losses are recognised (Stage 2). Once the credit risk of a financial asset increases to the point that it is considered credit-impaired, interest revenue is calculated after netting the impairment allowance from the gross carrying amount (Stage 3). However, in the case of purchased or originated credit-impaired financial assets, an entity shall only recognise the cumulative

Particulars	Stage 1	Stage 2	Stage 3
Type of Assets	Performing	Under Performing	Non-Performing
Credit Quality Deterioration	Not Deteriorated significantly since its initial recognition	Deteriorated significantly since its initial recognition	Objective evidence of impairment is present
Credit Risk Level	Low	Moderate to High	Very High
Recognition	12-month ECL	Life Time ECL	Life Time ECL
ECL	Represents the financial asset's lifetime ECL that are expected to arise from default events that are contemplated within 12 months	ECL that results from all possible default events over the expected life of an instrument	ECL that results from the objective evidence of impairment on the asset
Interest	On Gross Basis	On Gross Basis	On Net basis (Gross Carrying Value minus Net allowance)

changes in lifetime expected credit losses since initial recognition as a loss allowance. In contrast, under the extant IRACP norms, the provisioning is based on objective criteria fixed by the RBI, which are predominantly based on the days past due concept ("90-day norm") that ensures consistent application across the banking system. The provisioning requirements are based on the period for which the asset has remained non-performing and the security available. The new three stage impairment model is shown below:

7. Components of an Impairment Model

7.1 Default

When assessing whether there has been a significant increase in credit risk of a financial asset, entities need to compute the risk of default or Probability of Default (PD). The term default has also NOT been explicitly defined in Ind AS 109. However, entities may exercise judgement in accordance with their internal credit risk management policy. Ind AS 109 includes a rebuttable presumption that default does not occur later than when a financial asset is 90 days past due. However, an entity may provide reasonable and sufficient data to support that default has not occurred even after 90 days past due.

Default on a financial asset is one of the indicators that the asset is credit impaired. Entities need to assess whether there are other events that provide evidence that the asset is credit impaired. Once an asset is credit-impaired, it is categorised as stage 3 in the impairment model. While the loss allowance would continue to be recognised at the lifetime ECL, the interest revenue on such assets would only be accrued on the amortised cost, i.e. carrying amount net of expected losses (instead of the gross carrying amount of assets which is the practice for assets in stages 1 and 2).

Thus, default is actually not defined; however, each entity should define their own definition of default which should be consistent with the definition used for internal credit risk management purpose for the relevant asset and consider other qualitative indicators while doing an assessment.

7.2 Probability of Default

PD is one of the principal components of the ECL model. It is not only used to assess whether there has been a significant increase in credit risk of a financial asset, but also used in the computation of loss allowance in a PD-based ECL model.

The PD is determined over the period of exposure of the asset, which is generally the contractual period of the asset (except in case of revolving credit facilities), unless the entity has the ability to demand repayment or cancel the facility extended, or the customer has the ability to require an extension. PD assessment may be performed by estimating a PD term structure - which represents the PD of an exposure over a given future period at each point in time for the lifetime of the exposure.

PDs can also be estimated by making adjustments to an entity's regulatory model (example the internal risk-based model) or new models may be developed using a scorecard approach. Entities are required to incorporate forward-looking information (including macro-economic forecasts) while estimating the PD.

While Ind AS 109 does not prescribe any particular method for computing ECL, the PD-based model for computing ECL is likely to be used to estimate the loss allowance on financial assets in compliance with Ind AS 109. Under this model, PD, Exposure at Default (EAD) and Loss Given Default (LGD) are the principal parameters for measurement of ECL.

7.3 Exposure at Default (EAD)

EAD is a point-in-time measure for financial assets that represents the future contractual cash flows due at an expected date. It takes into consideration expected changes in the exposure after the reporting date, including repayments of principal and interest and expected draw downs on committed facilities.

Generally, a cash-flow model is used to reflect movements in the EAD. Entities should use a combination of contractual and historical data (i.e. relating to prepayments and extension of loans) to project future exposure.

7.4 Loss Given Default (LGD)

LGD is a point-in-time measure of loss expected on default. It is the difference between the contractual cash flows due and those that the lender would expect to receive, including from any collateral. It is usually expressed as a percentage of EAD.

Entities should consider cure rates (percentage of default without losses) and recovery rates (share that is recovered when a borrower defaults) of assets while computing LGD. For secured exposures, entities should also consider valuation of collaterals, time taken for realisation of the collateral and costs incurred on their realisation.

7.5 Discount Rate

The measurement of ECL should also reflect the time value of money. Hence cash shortfalls associated with default should be discounted to the reporting date. An entity should maintain consistency between the rate used to recognise interest revenue and project future cash flows and the rate used to discount those cash flows. Generally, this is the EIR of the financial instrument or an approximation thereof.

In the above example, ECL would be computed as a product of all its principal components, i.e.

$$ECL = (PD) \times (EAD) \times (LGD) \times (Discount\ Rate)$$

8. RBI Framework

As a prudent measure to build a cushion against the build-up of Non-Performing Assets (NPA), the RBI has also prescribed a provision on standard assets, which is broadly based on the principle of expected loss provisioning. Further, as a macro-prudential tool, the RBI prescribed the maintenance of a Provisioning Coverage Ratio (PCR) of 70% with reference to the gross NPA position as at September 30, 2010 with the surplus of the PCR provisions over actual requirements to be used as a counter-cyclical provisioning buffer that the RBI could allow banks to draw upon during periods of system wide downturn. In March 2012, the RBI released a 'Discussion Paper on Introduction of Dynamic Loan Loss Provisioning

(DP) Framework for Banks in India' which provided a broad framework to compute expected loss provisioning where it has highlighted the requirement of counter-cyclical provisioning to reduce volatility in banks' earnings based on the industry average for some select asset classes. Initial DP would be outstanding provisions made on standard asset and floating provision. However, it has an in built assumption that banks have reached 70% PCR. Incrementally RBI has suggested credit cost of 1.37%. If actual Specific Provisions (SP) is lower than 1.37%, excess provisions will be transferred to DP and vice-a-versa subject to certain conditions.

Based on weighted average Estimated Loss (EL) of nine individual banks, RBI has arrived at a system-level Loss Given Default (LGD) of 1.37% of loans during a downturn (a more conservative approach which RBI has recommended) and at an LGD of 0.84% of loans during normal times. For the purpose of calculation, model portfolio with corporate loans, retail loans, housing loans and other loans was taken as 49%, 17%, 6% and 28%, respectively. Thereby actual requirement would vary from bank to bank. Further banks might come out with estimated loss assumption based on their Internal Rating Method (IRB). Thus, 1.37% cannot be strictly taken as a benchmark for all banks.

The suggested framework for Indian banks is conservative (as credit cost suggested is based on downturn LGD) and the DP framework will include an element of general and specific provisions. RBI has suggested that till the level of normal LGD (0.84%), DP provisions should be considered as specific provisions and can be utilized to arrive at net NPA. Above normal LGD to actual levels (1.37%-0.84%), DP provisions should be considered as general provisions, and thus would be considered for tier-II capital.

The DP framework is based on the premise of average losses; average SP is equal to EL over the cycle. Under this framework, in addition to SP (as per regulation), banks are required to make provisions to extent of EL and the difference between EL and SP is transferred to an account called DP. A positive difference between EL and SP will increase

DP and a negative value will lead to drawdown from DP (subject to certain conditions). Thus, it will ensure that charge to P and L on account of credit cost will remain the same irrespective of the cycle.

While shifting to the DP framework, in the beginning, total provision outstanding on the balance sheet should be the addition of outstanding standard assets, floating provisions and specific provisions (at least 70% of NPA). In the other words, the DP initial balance will be the aggregation of standard and floating balance outstanding on the balance sheet. RBI has also ensured that the balance in the DP account should not go below 1/3rd of EL and has prescribed the floor limit below which banks cannot draw down from the DP account. Under the framework, RBI has suggested that banks take charge of 1/4th of the annual DP on a quarterly basis.

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RBI has suggested that two DP accounts be kept in the balance sheet: 1. DP account based on normal LGD – at the end of every quarter, the balance in normal LGD should be treated as SP, and 2. DP account based on downturn LGD – which could be treated as general provision and could be treated as capital.

The transition from a rule based regulator specified criteria approach that ensures consistency of application across the system to an ECL framework that is largely subjective based on management judgement, is data intensive, necessitates fairly sophisticated credit modelling skills and represents an enormous challenge not only for banks but also for auditors, regulators and supervisors. Although certain banks have applied to migrate to the Internal Ratings Based (IRB) approaches

for measuring capital charge on credit risk under the Basel norms, no bank has yet been granted permission by the RBI to adopt these. Regulatory validation exercise is in progress in respect of the IRB applicant banks.

Further, RBI reiterated that banks may note that Ind AS 109 is not specific in terms of the approach to be followed when measuring expected credit losses. The Reserve Bank expects banks to adopt sound expected credit loss methodologies commensurate with the size, complexity, and risk profile specific to individual banks. Banks may also note that the Reserve Bank shall finalise the policy on expected credit loss provisioning, taking into account the impairment requirements under Ind AS 109, after due deliberations and considering various factors including, inter alia, the inputs as above. Banks are therefore advised to maintain flexibility while designing the systems and processes in this regard.

The Reserve Bank of India (RBI) has decided to defer implementation of Indian Accounting Standard (Ind AS) by one year for the banks. This piece of news came as relief and is positive for all the banks and specifically for PSU banks, which as per estimates, require Rs. 63,100 crores towards incremental provisioning for advances, while changing to the Ind AS 109 regime. That is equal to 1.1% of the banks' risk weighted assets and 11.5% of their net worth. India Ratings, in one of its reports, had estimated that SCBs may require up to Rs. 89,000 crores towards incremental provisioning for advances, while changing to the Ind AS 109 regime. However, the change to Ind AS 109 regime will take place after the alteration in banking regulation act.

9. IFRS 9 and CECL and how they are Related to IAS 109

The IFRS 9 standard and CECL, both are followed by different parts of the world – The IFRS 9 being used by the banks in the U.K. and the CECL being implemented across U.S. banks. We will look into the various core concepts, similarities and

differences between these standards in the following sections.

9.1 Why IFRS 9/CECL?

Financial institutions reported that the loss accounted during the financial crisis as "too little, too late". There was delayed recognition of credit losses resulting from the incurred loss model. Existing accounting requirements were way too complicated and it was like a black box that only the insiders could understand. They needed a simpler way for accounting requirements. IFRS 9 was IASB's response to this and came up with expected credit loss model that anticipates the future losses. FASB's model is CECL model which is a variation of IFRS 9.

9.2 CECL Core Concepts

The CECL standard replaces today's "incurred loss" model with an "expected loss" model that requires entities to consider a broader range of information to estimate expected credit losses over the lifetime of the asset. The primary conceptual differences between these approaches are as follows:

- Under the incurred loss model, a loss (or allowance) is recognized only when an event has occurred that causes the entity to believe that a loss is probable (i.e. that it has been "incurred").
- Under the incurred loss model, the loss is generally estimated considering past events and current conditions.
- Under the expected loss model, an entity recognizes a loss (or allowance) upon initial recognition of the asset that reflects all future events that will lead to a loss being realized, regardless of whether it is probable that the future event will occur.
- Under the expected loss model, management must also include in its estimate its expectations for the future.

9.3 The CECL Estimate Should

- Be based on an asset's amortized cost: The standard requires credit losses to reflect expected losses of the entire amortized cost basis of an asset ((e.g. unpaid principal balance, premiums/discounts, accrued interest).
- ECL Estimation: Considers available relevant information about the collectability of cash flows, including information about past events, current conditions and reasonable and supportable forecasts.
- Remote Risk: Reflect the risk of loss, even when that risk is remote, meaning that an estimate of zero credit loss would be appropriate only in limited circumstances.
- Expected Voluntary Prepayments: The estimate of expected credit losses should reflect expected prepayments, which reduce potential losses by shortening the period over which the lender will be exposed to credit losses. (Reflect losses expected over the remaining contractual life of an asset, recognizing that voluntary prepayments reduce credit losses).
- Life of an Asset: The life of an asset generally should not include extensions, renewals and modifications that would extend the expected remaining life beyond the contractual term, unless the entity has a reasonable expectation that it will execute a troubled debt restructuring with the borrower.

The estimate of Expected Credit Losses (ECL) should consider:

- Historical information,
- Current information, and
- Reasonable and supportable forecasts, including estimates of prepayments.

It includes both the current and future credit losses (unlike incurred losses which had only current losses).

9.4 Some of the Core Rules on Estimating ELC under CECL are

- Reflect the risk of loss, even when that risk is remote: The standard requires an entity's allowance for credit losses to reflect the risk of loss, even when that risk is remote. For example, if there is a 97% chance that the loss will be zero and a 3% chance of a total loss, the expected

loss estimate under the new standard would reflect the 3% likelihood of a total loss.

- When an entity may reasonably expect 'zero loss': CECL states that there would not be an expected credit loss when historical credit loss experience adjusted for current conditions and reasonable and supportable forecasts provides an expectation that non-payment of the amortized cost basis is zero. e.g. US Treasury securities.
- Measuring the credit impairment allowance: the impairment amount representing the credit loss will be recognized as an allowance for credit losses (except in cases where the entity wishes to sell the debt security prior to recovery). This allowance is a contra-account to the amortized cost basis of the AFS debt security.
- The initial estimate of the ECL and subsequent changes in the estimate will be reported in current earnings. The ECL will be recorded through an allowance for loan and lease losses (ALLL) in the statement of financial position.
- Following could be some of the approaches recognized for ECL estimation under CECL:

Discounted Cash Flow; Loss Rate Method; Roll Rate Method; PD Method; Ageing Schedules.

9.5 Amortized Cost Basis

- CECL requires institutions to measure expected credit losses on financial assets carried at amortized cost on a collective or pool basis when similar risk characteristics exist.
- Under CECL, the allowance for credit losses is an estimate of the expected credit losses on financial assets measured at amortized cost, which is measured using:
- Relevant information about past events, like historical credit loss experience on financial assets with similar risk characteristics,
- Current conditions; and
- Reasonable and supportable forecasts that affect the collectability of the remaining cash flows over the contractual term of the financial assets.
- Amortized cost basis includes premiums or discounts, foreign exchange and fair value hedge adjustments.

- Losses will be recognized sooner than under current guidance; however, model will allow immediate gain recognition on recovery.

9.6 AFS Debt Security Impairment Model (ASC 326-30)

- Under ASC 326-30, different impairment models will exist for debt securities that are classified as AFS and those that are classified as HTM.
- Under CECL, entities will recognize an allowance for credit losses on AFS debt securities rather than recognize impairment as a reduction of the cost basis of the investment, as they do today. i.e. The new model will require an estimate of ECL only when the fair value is below the amortized cost of the asset.
- The length of time the fair value of an AFS debt security has been below the amortized cost will no longer impact the determination of whether a credit loss exists. As such, it is no longer an other-than-temporary model.
- Credit losses on AFS debt securities will now be limited to the difference between the security's amortized cost basis and its fair value. The AFS debt security model will also require the use of an allowance to record estimated credit losses (and subsequent recoveries). This is a significant change from the current model.

10. Key Differences between IFRS 9 and CECL

Under IFRS 9 there are two measurement objectives:

- The amount of the allowance depends on the extent of credit deterioration since the initial recognition of the asset. For assets that have experienced a significant increase in credit risk since initial recognition, the allowance reflects lifetime ECLs.
- For all other assets, the allowance reflects 12 months of ECLs (i.e. the portion of lifetime ECLs that result from default events that are possible within the next 12 months).

Differences based on Key Concepts

Particulars	IFRS 9	CECL
Issued and Implementation Dates	Issued on July 2014; implementation on Jan 1 2018.	Issued on June 2016; Implementation on Dec15 2019 (for SEC Filers) and Dec 15 2020 (for Non-SEC Filers).
ECL Model	Credit Impairment methodology follows 3 stage approach depending on concept of 'significant deterioration' of financial instruments.	There is no such distinction and ECL is recognized for entire lifetime of all financial instruments.
AFS Securities	IFRS 9 ECL model applicable to debt securities at Amortized cost or at FVOTCI (fair value through other comprehensive income).	Under CECL, ECL for AFS Debt Securities modelled at Amortized cost.
Write off of assets	Financial assets are written off when the entity has no reasonable expectation of recovery.	Financial assets are written off as and when they are deemed uncollectible.
Estimation Method	In both the standards, no specific methodologies have been prescribed. Can use either a DCF method or a non-DCF method (loss rate, roll-rate, PD, aging schedule).	
Collateral Dependency	Not specified explicitly.	ECL should be measured using the collateral's fair value (less costs to sell), if a foreclosure is determined as probable. The fair value can be considered as the one at the reporting date.
Forecasting Horizon	12-month ECL or lifetime ECL depending on staging.	Forecast across entire lifetime.
Reasonable And Supportable Forecast	Specified as similar to CECL, but mean reversion methodology not specified. It can potentially be considered as the same.	In periods where reasonable and supportable forecasts cannot be obtained, revert immediately or at a pre-defined speed (Mean Reversion) to historical loss information at the level of input or entire estimate.
Financial assets with collateral maintenance provisions	Not explicitly specified.	To measure the allowance for expected credit losses, compare the amortized cost basis of the financial asset with the fair value of collateral at the reporting date.
Contractual term is defined without extension/ renewal options	"Expected life" is the total remaining contractual maturity of the financial instrument (with consideration of different product features).	
Extension in case of a TDR or Bank approvals	• If extension needs bank approval - the risk horizon should not include the extension option. • Otherwise, expected life will include expected time of exposure under the extension option.	Option of Extension should not be considered unless a TDR is expected to be executed at the reporting date.

Particulars	IFRS 9	CECL
If contractual term is not defined	The Life of the Loan – the entire period over which the entity is expected to be exposed to credit risk.	The Balance of the Loan's lifetime, until the facility becomes unconditionally cancellable.
Modifying terms of loan /TDR	• If a modification is not "asset de-recognition": - 1) Risk at initial recognition should be based on original, unmodified contractual terms; 2) Risk at reporting date should be based on modified contractual terms. • If a modification is "asset de-recognition": - The modified asset should be considered as a new asset.	If there is a reasonable expectation that the reporting entity will execute a troubled debt restructuring (TDR) with the borrower, the estimate of ECL should consider if the TDR will result in an extension of the term of the financial asset.

Under CECL, the allowance for credit losses is the amount that (when deducted from the amortized cost basis of the financial asset) reflects the net amount expected to be collected.

11. Conclusion

The estimation of expected credit losses is expected to be the most challenging aspect of the Ind-AS transition process for banks in India. The guidance on ECL is fairly complex and requires the exercise of judgement on several aspects. Not, just judgement, but substantiation of ones' judgements takes precedence. Further, banks would be required to expend significant costs and efforts in its implementation; but it is not mandated by the regulatory authority, that such huge expense/costs be necessarily incurred. The impact on financial results could also be significant. While several banks are in the process of developing their approach and models for estimating ECL, further guidance may also be required from the regulator to ensure consistency in application.

The IAS 109 expected credit loss estimation guidelines are much similar to the IFRS 9 standard because of the concept of bucketing the assets for the purpose of Credit Loss Estimation in accordance with impairment that each of the assets face (or are susceptible to face in the future). This would definitely make the banks more resilient towards huge losses. Since the banks are supposed to maintain greater than current provision to cover the losses, the management of banks as a whole have a concern that it might affect their growth, operations and business as a whole. The management need to sensitize themselves (or needs to be sensitised by the relevant committees taking care of IAS 109 implementation inside the bank) of these and take a bold step forward to embrace the future of the banking industry.

CECL/IFRS 9 is considered one of the biggest changes in the banking industry in the global environment. IFRS 9 had already been implemented by UK banks. CECL is going to be implemented by the US in 2019 and they have to be prepared for the changes and have to learn from the IFRS 9 the challenges faced. The models developed in this paper can be helpful for the banks to have a fair idea about the possible losses that could incur on the account of the new model and the volatility due to the new change.

12. References

1. https://www.bis.org/publ/qtrpdf/r_qt1703f.pdf
2. https://asc.fasb.org/imageRoot/39/84156639.pdf
3. https://www.federalreserve.gov/supervisionreg/topics/faq-new-accounting-standards-on-financial-instruments-credit-losses.htm
4. https://www.fdic.gov/news/conferences/accounting/2018-presentations/cecl-midsize-large-bergen-hall-bw.pdf