Global Research
& Analytics

CRISIL
An S&P Global Company

CECL impact matrix

January 2018

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1 Executive summary

Against the backdrop of global financial crisis in 2007-2009, regulatory bodies became critical of the methods used to decide provisioning for loan losses, resulting in the development of new accounting standards to determine appropriate level of balance sheet reserves as offset. International Financial Reporting Standards (IFRS) 9 and Current Expected Credit Loss (CECL) are two such regulations whose impact on the banking industry would be widespread and lasting. The most significant is the introduction of the 'expected credit loss' model replacing the 'incurred-loss' model, which will require banks to set aside additional capital, and also result in significant changes to their loss-forecasting methodology.

CECL requires lenders to immediately record the full amount of credit losses that are expected in their loan portfolios, providing investors with better information about those losses on a timely basis. All expected credit losses for financial assets held on the reporting date should be measured based on historical experience, current conditions, and reasonable and supportable forecasts. Many loss estimation techniques applied today will continue to be permitted, although the inputs to those techniques will change to reflect the full amount of expected credit losses. A detailed disclosure needs to be provided to investor and other financial statement users for better understanding of significant estimates and judgments used for estimating credit losses.

While the regulators and industry experts argue that the new standard provides benefits for both investors and bankers, opponents believe it will bring no significant benefit, cause greater volatility in bank's earnings, and be very expensive for communities and mid-size banks to implement. In this paper, we analyze the impact of CECL on different aspects of the banking industry.

2 An organization-wide change

The CECL framework will have widespread impact on the financial services industry. It will spawn many changes in business lines and the internal workings of financial institutions, and is designed to achieve more stability and liquidity. Under the CECL framework, financial institutions are required to provide for loans at origination itself rather than wait for its performance to deteriorate and then do so. While this will affect capital management, the overall impact will cascade at a much wider scale within organizations.

2.1 Not just capital, credit quality might change as well

Under CECL, loss provisioning for credit risk is expected to increase because firms will have to calculate the lifetime losses for a loan or a debt instrument – i.e., the expected loss to be incurred through the lifecycle of the loan, and account for it at origination. That will also increase volatility of credit-risk capital because estimates of expected losses could change significantly even with slight alteration in inputs and assumptions. While the new guidelines do mention that estimates of losses used to decide on credit-risk capital should be forward looking, there is no pre-defined methodology to calculate expected credit losses.

Banks will need to analyze credit-risk parameters at a more granular level, leading to significant increase in data requirements for the credit-risk division. It will also help in better capital provisioning for stressed circumstances when there is a significant increase in risk due to very high default potential and correlations. In the long run, the standard can have a significant impact in mitigating credit risk for a bank by dissuading it from having too many weaker credit-quality loans and debts instruments on its balance sheet. And borrowers on the edge of the credit market will face more stringent conditions from banks when availing of loans.

2.2 Redefining current processes and methodologies

Firms need to re-examine their current processes to recognize the areas where a re-alignment with CECL might be required. Current operational efficiencies will change as well.

2.2.1 Data organization and controls

The regulations may also impact the way data are stored and organized within a firm, which will ultimately lead to integration of risk and finance data, which are currently stored in separate systems at most banks. Also, the comprehensive data requirements of CECL will persuade banks to opt for creation of a central data repository that can be leveraged for various reporting requirements. While this will convenience decision-making, and streamline portfolio analysis and risk reporting, it will also necessitate additional data quality checks and controls.

2.2.2 IT infrastructure and processes

Banks will have to hunt for more scalable alternatives in terms of IT infrastructure and processes. The growing wave of automation is likely to hit banks at a faster pace leading to improved efficiencies and accuracy. At a process level, this may lead to significant changes in overall methodology. For example, assets having similar risk characteristics can be grouped to estimate credit loss collectively.

2.2.3 Management Intervention

Under CECL, there is greater emphasis on management judgment so there will be situations where manual adjustments are required. For example, certain assumptions used to estimate credit loss at an individual basis could be influenced a lot by management guidance and subjectivity. Also, modifications of historical loss data for conditions that are not present in the model may require manual intervention, increasing the need for controls surrounding the process.

2.2.4 Governance, monitoring and auditability

As the processes to calculate expected credit loss get more complicated, audit issues would crop up for banks. That will require more extensive documentation and control management of the extant and new processes. Banks are likely to set up separate governing committees to look after the end-to-end process of loss estimation. So roles and responsibilities will need to be clearly defined for them.

2.2.5 Disclosures

The new guidance does come with significantly increased disclosure requirements such as the methodology used to arrive at expected credit loss and key credit risk indicators.

2.3 Incipient liquidity pressure

In the short term, increased capital requirements under CECL could lead to liquidity pressure at banks, so the assets and liability management systems have to cope up with enhanced funding risk. Banks may try to do so in two ways:

- **Restructuring:** Banks may restructure some liabilities so as to reduce expected losses, which have to be reserved till maturity of the asset

- **Securitization and asset sales:** Liquidity needs could be met through asset sales and securitization of mortgages instead of holding them to maturity.

2.4 Models

Existing models will have to be re-evaluated to check if they can be made compliant for CECL loss estimation. Modelling methodologies that are not forward-looking will have to be changed to incorporate estimates. The new models are required to be more robust to take lifetime losses into consideration. This can increase the complexity of existing methodologies and also require banks to boost budget allocation for model development and validation. Allowance estimation will be subject to volatility and sensitivity, so quantitative analytics will have an important role to play. The analytics team will also have to support qualitative disclosures.

Such impact is unlikely to be restricted to methodology or modeling. It may also necessitate the upgradation of existing infrastructure in terms of current platform and hardware requirements.

The implementation of CECL might bring specific changes in some of the most common methodologies currently used for estimating the allowance amount. For example, the discounted cash flow approach may need to incorporate multiple scenarios (best, worst, severe and extreme cases) for calculation of cash flows for a particular debt instrument. Similarly, vintage analysis losses would no longer be represented by mere points on the loss curve

but rather be estimated by calculating the remaining area under the loss curve. Even the most commonly used probability of default/loss given default approach may require changes to take into account the lifetime probability of default.

2.5 KPIs may take a hit

CECL requires the same accounting standard to be applied across asset classes, whether impaired or not. That may need reclassification of certain assets such as distressed loans. The transition from incurred loss to lifetime expected credit loss model will, in turn, increase the impairment amount for banks as they will have to recognize loss that they don't under the extant methodology. That may affect reported profit in the short term. CECL is also expected to make earnings of banks more volatile as even small changes in assumptions could have a huge impact on loss estimates. That may also adversely impact some financial ratios such as return on equity of assets because loss provisioning is done at origination. The difference will be greater for assets with long expected lifetimes such as commercial real estate. Additionally, firms will experience capital flush in times of high credit growth as loan loss provisioning is done even before revenue is generated. Larger allowances will also imply decreased capital ratios for banks.

3 Conclusion

Indeed, CECL is the biggest accounting change of this decade. While its exact impact can only be deciphered at the time of implementation, broad impact estimates can be assessed at an organization-wide level. But time is of essence and the sooner the impact assessment is done, the better it will prepare banks for the transition.

CRISIL GR&A has a team of expert professionals to help clients assess the impact of CECL by identifying the key areas of improvement needed to conform. We apply our expertise and experience in estimating allowance for loan and lease losses (ALLL), developing credit risk models, process re-design, data-warehouse design, implementation and model validation. While our model risk team can help in redesigning current models, we also have expertise in model validation with leading financial institutions, which banks can leverage to assess compliance with CECL and maintain consistency with industry standards. We also have experienced professionals who help strengthen the overall infrastructure and also streamline data collection processes even while ensuring governance over data assets. Further, CRISIL's global footprint can be leveraged by banks with international exposures to implement CECL across the organization.

4 Appendix A: CECL impact areas

Models

- Analytical methodologies need to be updated to create forward looking and lifetime loan loss forecasts
- Modelling assumptions need realignment
- A gap analysis of current models is required for CECL compatibility

Capital buffers

- Capital requirements are expected to see significant increase under CECL as ALLL* is expected to be higher
- Volatility in earnings and reserves due to small changes in assumptions may introduce need for more capital

Profitability and KPIs

- CECL will lead to front-loading of losses compared with current methodology
- This may have significant impact on key earnings KPI such as ROE, ROA and EPS
- The impact is expected to stabilize over a few years

Financial statements

- Loss reserves are expected to increase from as low as 2-3% to as high as 50-60%
- Balance sheets with longer-term assets will be more impacted
- P&L statements are expected to see greater volatility

Accounting systems

- New regulation will require same accounting standards to be applied to all assets, whether impaired or not
- Several assets like distressed loans need to be reclassified under new process
- Accounting calculations may be uncertain

Data requirements

- Input data needs to be more granular and for a longer period of time
- Data covering a full business cycle will be needed to support CECL calculations
- Varied static, dynamic data requirements at a loan level might be necessary

Compliance

- Disclosures on loss calculation methodologies need to be more robust
- Credit quality indicators' disclosure needs to be provided by year of origination
- The end-to-end process may require a complete audit to check if current processes are compatible with CECL requirements or not

IT

- Data storage needs to be significant, current databases need to be evaluated for scalability
- Control around databases supporting loan loss calculation need to be more tangible
- Existing systems must be flexible to adapt to new modelling requirements

Governance

- FASB has established the Transition Resources Group to address issues brought to them by CECL
- Internal governance committee needs to established to monitor and oversee the process of CECL calculation

5 Appendix B: CECL impact matrix

Division	Impact mode	Scale of impact
Credit risk	Direct	Significant
Liquidity risk	Direct	Significant
Operational risk	Indirect	Significant
Legal risk	Indirect	Low
Model risk	Direct	Significant
Risk analysis & reporting	Direct	Significant
Risk governance	Direct	Medium
Stress testing	Direct	Medium
Quantitative analysis	Direct	Medium/Significant
Model validation	Direct	Medium/Significant
New product development	Indirect	Medium
Credit research	Indirect	Low
Credit evaluation	Indirect	Medium
Treasury	Direct	Significant
Accounting	Direct	Significant
Regulatory audit	Indirect	Low
Regulatory reporting	Direct	Low/Medium

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Last updated: April 2016

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