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Lessons Learned on CECL for Community Banks

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Grigoris Karakoulas

Six quarters have passed since the implementation of the CECL standard by the SEC filing banks (excl Not Smaller Reporting Companies) on January 1 2020. The community banks and credit unions are presently working towards an implementation deadline of January 1 2023.

The purpose of this article is to highlight a few of the lessons learned so far in order to help financial institutions with critical issues in the implementation of the new standard.

Thus, the article consists of two sections:

1. An update on our comparative analysis of CECL vs. Incurred Loss Model (ILM)¹, examining potential procyclicality of the two standards during the pandemic induced recession.
2. An analysis of the weighted-average remaining maturity (WARM) method together with an evaluation of its forecasting power. The WARM method often comes up in our client conversations on method selection, since it has been advertised as a simple method for loss forecasting and similar to how losses have been estimated under the ILM standard. Unfortunately, there is no free lunch! Simplicity in this case comes at a significant price in terms of potential misestimation and procyclicality of loss provisions.

The selection of relevant economic scenarios is the other critical component of a CECL implementation that could significantly affect the accuracy and procyclicality of the expected loss. We defer discussion of this component to the next article in the series.

1. CECL vs. ILM Update

Most of the SEC filing banks have been reporting their CECL allowance and provisions since Q1 2020. Adding to its controversy, the application of the new standard coincided with the start of the pandemic induced recession.

Figure 1 depicts the *Allowance-to-Loans ratio* for four cohorts of banks based on their assets. The ratio for all four cohorts has remained below the Great Recession peak. The banks in the “>\$250B” and “\$10B-250B” cohorts had their ratios move in tandem from Q1 2020. The ratios for these two cohorts peaked in Q3 2020 and have been declining since then. This is in contrast to what happened during the Great Recession and its aftermath. In fact, the “>\$250B” had its ratio remaining at relatively high levels long after the end of that recession. This rather uniform behavior in the ratio this time around can be attributed to the application of CECL since the above two cohorts mainly consist of CECL adopters.

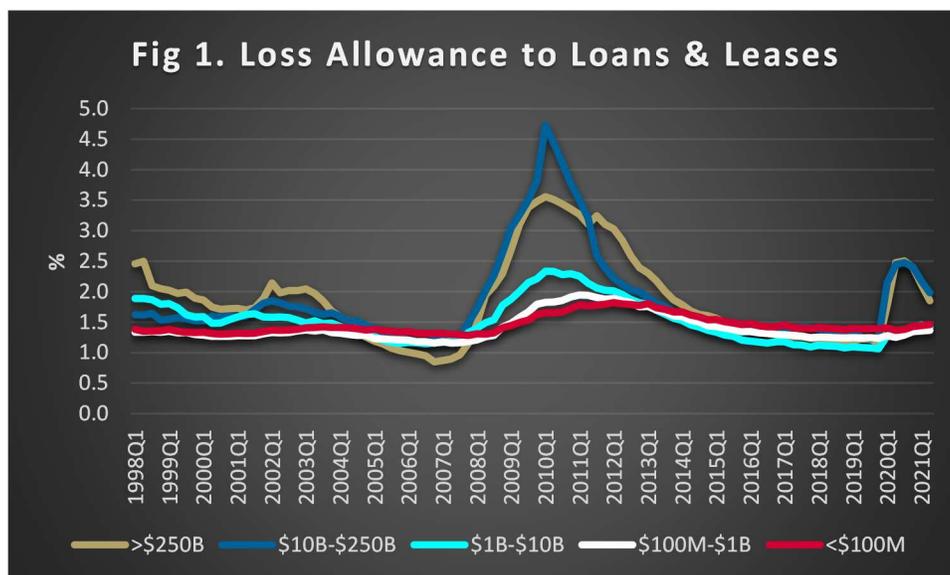
On the other hand, the other three cohorts consist of banks using ILM for their allowance and provisions. The ratio for each of these three cohorts has not peaked yet albeit rising to much lower levels compared to the first two cohorts.

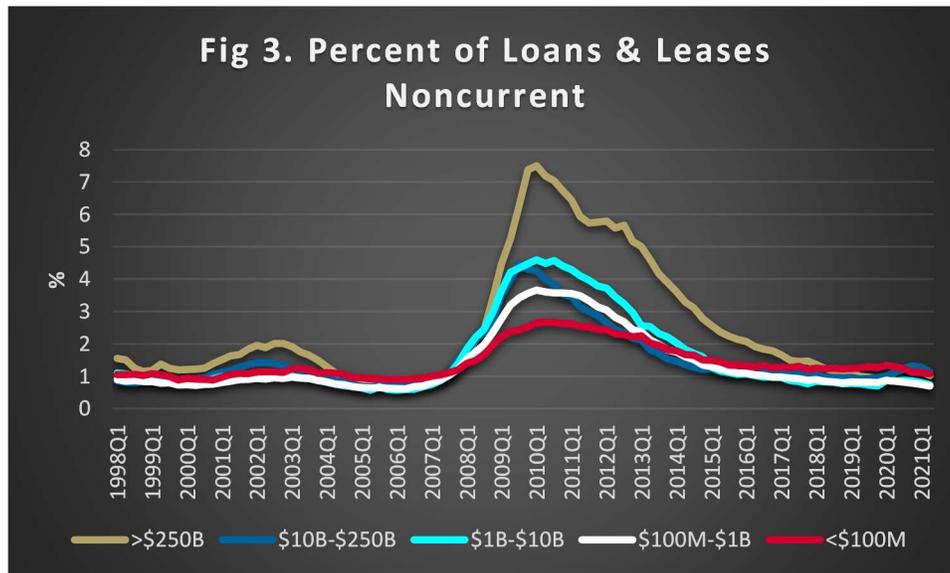
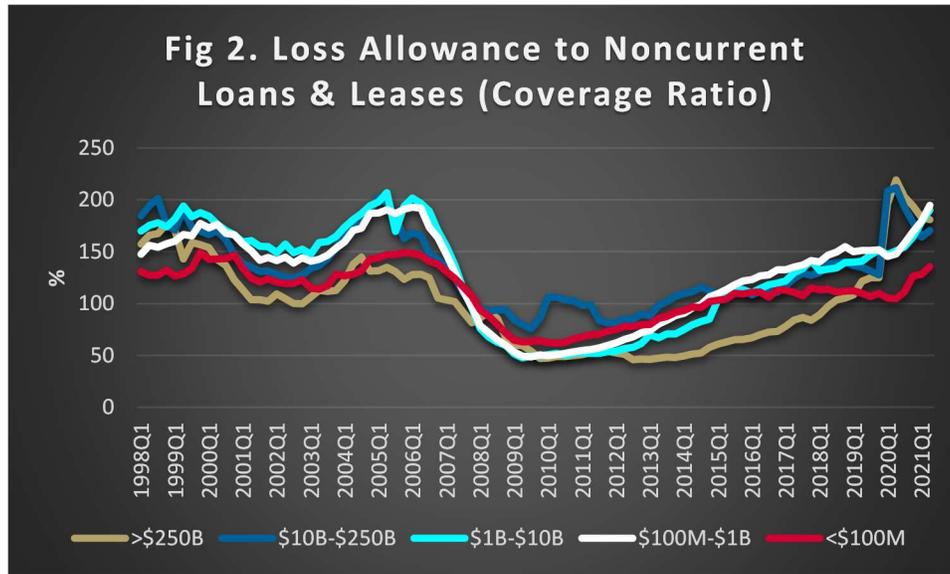
This distinct grouping of the patterns is even more pronounced in the *Coverage ratio* shown in Figure 2. The difference in this case is that as of Q2 2021 the Coverage ratios of the “\$1B-\$10B” and “\$100M-\$1B” cohorts have risen to levels above the “>\$250B” and “\$10B-\$250B” cohorts. However, the ratio of each of the latter two cohorts has been declining after having peaked at a record level in Q2 2020. This is

because several of the large and midsize banks in these cohorts have been releasing their reserves since Q4 2020.

The Noncurrent rate is depicted in Figure 3. In sharp contrast to the Coverage ratio, this rate has remained at low levels during the present recession compared to the Great Recession. This is due to the extraordinary levels of fiscal relief and forbearance programs that have masked the risk in banks' portfolios. Of course, the Noncurrent rate rose for all five cohorts during the recession. For the ">\$250B" cohort it peaked in Q3 2020, for the "\$10B-\$250B" in Q4 2020, for the "\$1B-\$10B" in Q3 2020, and for the "\$100M-\$1B" and "<\$100M" cohorts in Q1 2020. It remains above pre-pandemic levels for all but the last two cohorts.

- The CECL allowance ratios peaked in Q3 2020 whereas the ILM allowance ratios have continued rising. This confirms our previous analysis that showed CECL to be less procyclical than ILM¹.
- The principles-based measurement model and disclosure requirements for CECL make peer group comparisons difficult. This was recorded as one of the three key challenges for financial institutions that adopted CECL in 2020 at a recent FASB Public Roundtable meeting²; the other two challenges being the cost of implementation and complexity/modeling challenges.
- Nevertheless, the above analysis has shown that banks have behaved similarly at a group level since Q1 2020 depending on which loss provisioning standard they have used, CECL or ILM. This is consistent with our previous analysis where we provided empirical evidence that the adoption of CECL has decreased the allowance variation amongst banks¹.





2. Analyzing the WARM method

The above conclusion of CECL being less procyclical than ILM is very relevant to the analysis of the WARM method because the latter method is similar to how financial institutions have been estimating losses under ILM.

For illustration, let us again compare Figures 1-3 for smaller banks versus the larger ones. Similarly to the allowance of smaller banks, WARM based allowances will behave in a procyclical manner, moving in tandem with the economic/credit cycle instead of ahead of it. This will translate into more volatility based on economic shocks. In contrast, CECL is intended to remove that procyclical tendency of loss provisioning with the goal of being counter-cyclical. This is reflected on Figures 1-3 for larger banks.

The non-SEC filing banks are presently working towards an implementation deadline of January 1 2023. Since the majority of these institutions are non-complex banks, FASB issued a Staff Q&A in 2019, stating

that the weighted-average remaining maturity (WARM) method may be appropriate for estimating expected credit losses “for smaller, less complex pools of assets”⁴. In addition, six regulatory agencies together with FASB hosted a webinar⁵ where they discussed the WARM method and their view.

As explained elsewhere³:

- The various choices in the implementation of the standard including the selection of the loss estimation method can significantly affect the loss forecasting accuracy and procyclicality of the loss provisions.

It is therefore important to first provide a refresher on the WARM method and its pros/cons in order to help community banks make an informative decision when considering this method for their implementation. We then evaluate the forecasting power of the method through a case study.

2.1 Pros and Cons

The WARM calculation is mainly the product of three components: (i) annualized charge-off rate, (ii) weighted-average remaining expected life and (iii) amortized cost of the portfolio at the measurement date. Thus, the apparent simplicity of the method can make it attractive to banks that would like to make little to no change to their existing processes for credit loss estimation. However, this might not be a desirable feature since the existing processes seem to have led to procyclical loss provisions during the Great Recession and the present recession as discussed in the previous section.

However, this simplicity comes at a significant price due to the shortcomings of the method:

- (i) It assumes that prepayment and charge-offs occur equally over the life of a loan. This is a very limiting assumption. It is common knowledge that loan age is a major factor in the prepayment and default/loss events, particularly in consumer and real estate loans. For example, the refinancing wave in residential mortgages during 2020 was led by the 2018 and 2019 vintages. In fact, the 2018 vintage had the highest prepayment speed of any vintage in over a decade.
- (ii) Furthermore, rising interest rates during a growing economy, such as for example the ones expected in the coming quarters, will result in longer expected lives. Hence, the WARM method would lead to higher credit loss estimates even though lower credit risk would be expected during an expansionary economy. A bank would have to apply Q factors to adjust the WARM estimates downwards in order to remove this inconsistency.
- (iii) The method is quantitatively backward looking, as the loss forecast is calculated from historical rates without any explicit link to future economic conditions. The latter are only incorporated through Q factors.

In 2019 ABA published a paper with a detailed critique on the WARM method⁶. The paper states: “ABA believes banks that rely on WARM are setting themselves up for significant challenges that exceed those to be experienced if they used other estimation methods.”

In the regulators’ webinar⁵ Shayne Kuhaneck from FASB reiterated that the method may be appropriate for smaller, less complex pools of assets. He elaborated that the method is more appropriate for short-

dated portfolios that require less qualitative adjustments in calculating the allowance for credit losses under the WARM method as they may have more evenly distributed loss rates. This would be the case for example with a C&I portfolio. The reason for this recommendation is because of the limiting assumption embedded in the method that prepayment and charge-offs occur equally over the life of a loan as per (i) above.

Kuhaneck summarized the discussion about the appropriateness of the WARM method by saying: “And so I think there becomes a point where you have to decide as an institution, is the work that I’m doing to prove the Q factor worth it, or should I maybe use a different model that captures more in the actual model.”

Thus, the regulators stated in their webinar⁵ that the WARM method is an acceptable method but with the following cautionary disclaimer: “not a regulator preferred method, there is no safe harbor provision here. There are other acceptable loss-rate methods. And in last year’s ‘Ask the Regulator’ webinar we covered open pooling and vintage as two other accessible loss rate methods.”

Indeed, an open-pool loss rate method is also built on historical quarterly net charge-off rates and is simple but, in contrast to the WARM method, it allows using forward-looking models based on relevant economic and market factors. Furthermore, a vintage method can capture aging effects on prepayment and default/loss during the life of a loan or pool of loans.

2.2 Backtesting

To evaluate the forecasting power of the WARM method, let us assume the case of a community bank that operates in Texas and has portfolios of C&I, 1-4 Family/first lien, Non Farm Non-residential Owner-occupied and Non Farm Non-residential Other loans. Due to inadequate internal data history, the bank uses the time-series of quarterly net charge-off (NCO) rates for the four portfolios from the FDIC Call Report data of Texas community banks for the period Q12001-Q42019. The bank uses these data to develop two sets of models, one following the WARM method and one following the open-pool loss rate (OPLR) method that was mentioned above as an alternative one. The OPLR method estimates a loss model as a function of macroeconomic factors.

The bank holds off the most recent 20% of the quarterly data for the out-of-sample evaluation of the two sets of models. Thus, it only uses the remaining 80% of the quarterly data for building the models. The bank uses the same assumptions across the two sets of models for average loan life by asset class. For the WARM models it assumes a 25bps qualitative adjustment to represent both current conditions and reasonable and supportable (R&S) forecast. For the OPLR models it uses a baseline scenario of the macroeconomic factors with an R&S period of 12 quarters.

Table 1 shows the adjusted lifetime loss factor from the two methods by asset class. Not surprisingly, the two methods result in significantly different lifetime loss factors. We have come across similar situations in CECL projects where different implementation choices lead to different forecasts. Which of the two methods though is the “right” one?

Portfolios	WARM	OPLR
C&I	1.94%	2.26%
1-4 Family	0.54%	0.37%
NFR-Own	0.42%	0.14%
NFR-Other	0.32%	0.22%

Table 1. Adjusted Lifetime Loss Factors

Table 2 presents the mean-squared error of the models on the out-of-sample data subset. The error of the OPLR models is orders of magnitude smaller and hence better than the WARM models across the four asset classes, and particularly for the 1-4 Family/first lien and Non Farm Non-residential portfolios.

Portfolios	WARM	OPLR
C&I	0.93	0.26
1-4 Family	59.21	0.38
NFR-Own	3.85	0.2
NFR-Other	130.4	1.07

Table 2. Mean-squared error of loss forecasts

3. Concluding Remarks

- Our ongoing comparative analysis has shown that CECL is less procyclical than ILM.
- Although the WARM method is a simple and acceptable method for estimating losses, it does not seem to be a regulator preferred method due to its drawbacks.
- In our case study the WARM method performed extremely poorly for forecasting out-of-sample losses.
- In contrast, an open-pool loss rate method, that is forward-looking in addition to being simple, performed orders of magnitude better than the WARM method in out-of-sample forecasting.
- Thus, given also the similarity of the WARM method with ILM and procyclicality of the latter during the most recent recession, we strongly recommend that community banks empirically evaluate and benchmark the WARM method for each of their portfolios so that they can make an informative decision for the forecasting method instead of one based on simplicity only.

Notes

1. G. Karakoulas. CECL: An Up-to-Date Comparative Analysis with ILM. RMA Journal, March 2021, pp.54-61.
2. [May 20, 2021 Public Roundtable Meeting on Credit Losses - Meeting Handout \(fasb.org\)](#)
3. G. Karakoulas. Economic cycles, regional differences and other considerations in implementing CECL. RMA Journal, February 2020, pp.70-75.
4. [FASB Staff Q&A—Topic 326, No. 1: Whether the Weighted-Average Remaining Maturity Method Is an Acceptable Method to Estimate Expected Credit Losses](#)
5. [FDIC: Community Bank Webinar](#): Current Expected Credit Losses (CECL) Weighted-Average Remaining Maturity (WARM) Method, April 11 2019.
6. CECL implementation concerns on WARM and the need for comprehensive CECL guidance for Community Banks. A discussion paper of the American Bankers Association, January 2019.

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