

**Technical Content:**  
**Mike Gullette**  
[Mgullette@aba.com](mailto:Mgullette@aba.com); 202-663-5320

**Media Contact:**  
**Blair Bernstein**  
[Bbernste@aba.com](mailto:Bbernste@aba.com); 202-663-5468

## **FASB's Current Expected Credit Loss Model for Credit Loss Accounting (CECL): Background and FAQ's for Bankers June 2016**

This document covers the key issues bankers and others are asking related to FASB's issuance of its CECL credit loss accounting standard. For more information related to CECL, please go to the [ABA CECL Webpage](#), which includes challenges bankers will face in implementing CECL (the ABA Discussion Paper: [CECL Challenges: The Life of Loan Concept](#).)

Those bankers interested in joining CECL implementation peer groups, please send a message to [MDockery@aba.com](mailto:MDockery@aba.com).

### **CECL FAQs FOR THE C-SUITE AND BOARD MEMBERS**

- [Question 1: What is CECL?](#)
- [Question 2: What's at stake with the change?](#)
- [Question 3: Why is CECL so different from what the accounting is now?](#)
- [Question 4: Why could CECL change the way banks do business?](#)
- [Question 5: What do the regulators think of CECL?](#)
- [Question 6: What do the auditors think of CECL? Are they ready to audit under CECL?](#)
- [Question 7: Will banks be recording huge additional allowances at implementation?](#)
- [Question 8: Is there anything that a banker may like about CECL?](#)
- [Question 9: Is there a chance that FASB will change its mind about some or all of CECL?](#)
- [Question 10: Should banks record higher ALLL now in order to mitigate the impact of CECL?](#)
- [Question 11: Now that the new standard is issued, what should a bank do now?](#)

### **CECL STANDARD SPECIFICS**

- [Question 12: Does CECL get rid of individual loan impairment?](#)
- [Question 13: Does CECL get rid of accounting for Troubled Debt Restructurings?](#)
- [Question 14: Does CECL change purchase accounting?](#)
- [Question 15: CECL is also for debt securities? Does it get rid of OTTI?](#)

(more)

### **CECL OPERATIONAL CONCERNS**

Question 16: I currently perform stress testing for DFAST. Can I just use my DFAST models?

Question 17: My bank already performs forward-looking credit loss estimates. Can I just do what I've been doing?

Question 18: I'm a small bank. Does CECL require complex analysis?

Question 19: What CECL measurement methods should our bank use in estimating my ALLL?

Question 20: I have a small bank with relatively little loss experience. Except for the financial crisis, my losses are very limited. What am I supposed to do?

Question 21: How many years of loss data will I need to do my CECL estimates?

Question 22: Will I need to maintain a data warehouse? What data is needed?

Question 23: For a 30 year mortgage portfolio, does CECL require 30 year forecasts?

Question 24: Professional economists rarely forecast accurately, yet FASB expects me to? How will auditors test my forecasts?

### **APPENDIX: THE FASB PROCESS AND NEED FOR A NEW MODEL**

Question A1: What was ABA's role during the CECL development process?

Question A2: Did FASB examine other impairment models?

Question A3: Will CECL Prevent or Diminish Future Financial Crises?

Question A4: Does CECL Achieve Convergence of World-wide Accounting Standards?

Question A5: Are there currently different impairment standards between IFRS and GAAP?

Question A6: But weren't "too little too late" allowances real problems in the U.S. during the Financial Crisis? Isn't that why we had Congressional hearings in 2009?

Question A7: How big was the "too little too late" issue in the U.S.?

## **CECL FAQs FOR THE C-SUITE AND BOARD MEMBERS**

### **Question 1: What is CECL?**

The Current Expected Credit Loss model (CECL) is the new accounting model FASB has issued for the recognition and measurement of credit losses for loans and debt securities. The new standard will generally be effective for SEC registrants' 2020 financial statements and in 2021 for banks that are not SEC registrants. For banks that are not considered Public Business Entities (PBEs), the effective date will be at December 31, 2021, alleviating them of the requirement to file CECL-based call reports until then (please note that "public" is according to the FASB's definition, which is not the same as other commonly-used definitions – see question 11 for more information). Early adoption is permitted beginning in 2019.

Accounting for loan losses is at the heart of bank accounting, as it affects what banks do – lend money and collect principal and interest. Amounts that banks do not expect to collect will be recorded in the allowance for loan and lease losses (ALLL) and in an allowance for credit losses on Held-To-Maturity (HTM) debt securities. Any additions to the ALLL are recorded as expenses, which reduces bank capital.

[Return to top](#)

### **Question 2: What's at stake with the accounting change?**

FASB is replacing the current "incurred loss" accounting model with an "expected loss" model – CECL. Banking regulators have referred to CECL as "the biggest change ever to bank accounting."

This standard is expected to have a huge impact on the costs to prepare and audit the ALLL, how investors analyze the ALLL, and how banks manage their capital. While initial estimates in 2011 indicated 30-50% increases in the ALLL would result from CECL implementation, independent estimates since then have been significantly lower, as the CECL estimate is largely dependent on a company's forecast of future economic conditions. For that matter, certain aspects of CECL may actually lower allowances in some portfolios. Therefore, while it assumed that ALLL balances will generally increase, the extent of the change is unknown at this point and due to a changing economy, estimates could change often between now and the 2020 implementation date.

CECL requires significant changes to the data a bank maintains and analyzes. Bankers, regulators, and auditors are in agreement that more granular data and analysis will be required and new performance metrics will be needed.

[Return to top](#)

### **Question 3: Why is CECL so different from what the accounting is now?**

Current credit loss accounting standards have been in place for about 40 years and are referred to as “incurred loss” accounting, meaning something probably happened that caused impairment to the loan. For practical purposes, that impairment is normally measured in pools of loans and is heavily based on historic annualized charge-off rates.

In contrast, CECL has an “expected loss” notion. An event does not have to have occurred, but can be expected in the future. Further, the historical data that CECL relies upon is not annual loss rates, but is on life of loan or life of portfolio loss rates. This is a big difference that can be very easily misunderstood.

Conceptually, where incurred loss accounting essentially reflects the current *losses* in a portfolio, CECL reflects the current *risk* in the portfolio, which includes both current and future credit losses.

[Return to top](#)

### **Question 4: Why could CECL change the way banks do business?**

CECL allowances are assumed to be higher than current ALLL levels, and the potential volatility inherent in a long-term forecast of the future will likely present cost of capital concerns to bankers. Considering this and the incremental costs to perform CECL estimates, it may simply cost more to operate a bank.

Less obvious, however, is that bankers will likely be expected to integrate the assumptions used in their CECL loss estimates (mainly those pertaining to forecasts of the future) with those used in asset/liability management, capital management, and overall budgeting. CECL’s requirement to record a life of loan loss estimate at origination (in other words, recognize the cost up front), for practical purposes, will force a bank to weigh the potential risks much more closely before expanding its business. This can change bank behavior. For example:

- Banks that can demonstrate how certain borrowers present lower credit risk will record less ALLL at origination, increasing the relative amount of deployable capital. This could have increased lending during the financial crisis, as banks significantly tightened their underwriting standards. Those pristine borrowers represented relatively low credit risk and would have created relatively little expected loss at origination.
- Since the initial probability of loss normally increases the longer the contractual term of the note, banks may offer shorter term loans to reduce their CECL allowances.
- Banks that are able to better monitor loss expectations by credit rating and term may be able to better price these factors into their products over time.

It will take years to determine the actual behavioral impact of CECL. However, the potential changes could be significant.

[Return to top](#)

### **Question 5: What do the banking regulators think of CECL?**

The U.S. banking agencies have strongly supported CECL since it was proposed in 2012, and have expressed the view that CECL is scalable to banks of all sizes. At a private workshop held by the ABA to discuss how community banks might implement CECL (prior to CECL's issuance), FASB members, as well as staff from the SEC, PCAOB, auditing firms, and banking agency accounting divisions all agreed that the complexity and sophistication of the CECL analysis should be consistent with the complexity and sophistication of the bank itself. That said, they all acknowledged that different and additional data would need to be maintained and additional analysis would be required to account for CECL-based forecasts of the future.

[Return to top](#)

### **Question 6: What do the auditors think of CECL? Are they ready to audit under CECL?**

The Global Public Policy Committee (a group of large world-wide auditing firms) is expected to publish a document by the end of 2016 that illustrates what will be expected of the internal controls systems of banks with different levels of sophistication.

The regulators of auditors world-wide have identified serious challenges in auditing expected credit loss accounting estimates, including both IFRS 9 (for companies outside the U.S.) and CECL. A recent discussion document addressing the auditing of accounting estimates published by the International Auditing and Assurance Standards Board (IAASB) notes two stark challenges for auditing firms (emphasis added):

- *“It is possible that the auditor’s range, or difference between management’s estimate and the auditor’s point estimate, may be **multiples of performance materiality.**”*
- *“Large ranges can **result from only minor differences in assumptions** due to...**sensitivity** of the output to changes in the assumptions. It is possible that...experienced experts may disagree with respect to the appropriate assumptions...”*

Since the Public Company Accounting Oversight Board (PCAOB) in the U.S. participates in the IAASB, the PCAOB is considering these observations in its efforts to address the auditing of accounting estimates, as well as the use of specialists in an audit. It is unclear what direction the PCAOB will take at this point. ABA notes, however, that as CECL estimates will affect regulatory capital and, as a result, dividend availability, both auditors and bank investors are could ask for more detail in order to understand the assumptions made by management.

[Return to top](#)

### **Question 7: Will banks be recording huge additions to the ALLL at implementation?**

Not necessarily. In 2011, the OCC and Fed made predictions that industry allowances would go up by 30 to 50%. However, that was based on the conventional expectations in 2011. The

economy and, more importantly, expectations on the economy, have changed since then. In fact, in September 2015, KBW's prediction for the small and mid-size bank they follow was a median increase in the ALLL of 3%.

In addition to improvements in the economic outlook, certain key provisions of CECL could lower ALLL levels for some portfolios. CECL cuts off any consideration of loss expectation at the contractual maturity, no matter the likelihood of renewal (which is common for many lending arrangements). So, a loan's contractual maturity date can be a big factor within CECL. Further, a key aspect of expected loss, of course, is credit quality. A bank that shifts its product mix to borrowers of higher credit quality, and is able to analyze these borrowers separately, may be able to reduce its expected loss estimate compared to what the allowance would be without breaking these loans out.

Under CECL, the ALLL will be based on expectations that can vary by product mix (which includes credit quality and loan terms, such whether the loans have variable rates or not and when they mature). The expected loss will also depend on geography and perhaps most importantly, an individual bank's forecast of future economic conditions at that point in time. Therefore, there may often be little value in predicting specific bank ALLL levels prior to the effective date.

[Return to top](#)

### **Question 8: Is there anything that a banker may like about CECL?**

While CECL represents a huge challenge for the industry, the standard provides some improvement that will be noticeable to both investors and bankers.

**More Flexibility is Allowed:** Banks will not be as limited by GAAP as they have been in the past to recognize losses that they anticipate in the future. In CECL, such losses are recorded when management sees potential trouble spots. That privilege, of course, comes as a two-edged sword. Applying forecasts of the future to loan portfolios may be difficult, and supporting the quantitative impact of those forecasts is far more complex than what is practiced today.

**Accounting for Purchased Loans:** One of the biggest complaints that both bankers and investors have with current GAAP is that purchase accounting is very confusing, especially for loans that are acquired and are already credit-impaired. FASB is repairing this accounting for credit-impaired loans, using a "gross up" method that effectively creates an ALLL upon purchase. This will greatly simplify the ALLL process and help investors who like to analyze allowance coverage ratios and net interest margins. While there still remain similar issues for those non-impaired purchased loans, FASB has included further guidance that indicates the number of loans that will qualify for this "gross up" method will greatly expand, thus significantly alleviating the problem.

**Other Than Temporary Impairment (OTTI) on Debt Securities:** In 2009, FASB substantially rectified debt security accounting by largely limiting the amount of OTTI that is recognized in earnings (and, thus, Regulatory capital) to the amount of estimated credit loss

(previously, the entire market value decline was recognized in earnings). Complaints of debt security accounting persisted because OTTI requires a direct write-down of the book value of the security – any recovery of OTTI would be recognized only over the remaining life of the security. Under CECL, OTTI is recorded as an allowance for credit losses and not as a direct write-down, with the ability to immediately recognize any estimated recovery of credit losses.

**Renewable loans:** Although many commercial loans contractually mature within a year or less, they are generally renewed, resulting in lives that longer than the contractual lives. Currently, many bankers estimate losses on commercial loan portfolios one to two years in the future based on expected renewals rather than contractual lives. However, CECL will utilize only contractual lives. Thus, there is a reasonable likelihood that the ALLL may decrease for such portfolios due to the shorter lives of the estimates. (Generally, the banking agencies did not support this shorter life estimate in CECL.) Although this aspect of CECL is not necessarily something “a banker may like” if the ALLL does not represent the credit risk that is truly foreseen, it does result in lower ALLL to offset other areas of CECL that are viewed as over-reserving, thus, freeing up capital.

**Unconditionally cancellable open lines of credit:** Bankers currently provide an allowance for probable losses on credit card lines of credit that generally represents the amounts to be charged by borrowers with financial difficulty before those difficulties are identified and cancellation of the borrower’s credit line goes into effect. Under CECL, it is likely these provisions will not be allowed, as they are for activity that technically goes beyond the contractual end. ABA expects further discussion on this issue within the transition period before the effective date, as the regulators have already expressed disagreement with this aspect of CECL. Although this aspect of CECL is not necessarily something “a banker may like” if the ALLL does not represent the credit risk that is truly foreseen, it does result in lower ALLL to offset other areas of CECL that are viewed as over-reserving, thus, freeing up capital.

[Return to top](#)

### **Question 9: Is there a chance that FASB will change its mind about some or all of CECL?**

FASB will actively monitor issues brought forth through its Transition Resource Group (TRG), which is made up of bankers, auditors, and regulators. ABA anticipates that some of the information shared through the ABA CECL peer groups that are being organized may feed the TRG. Feedback on CECL from ABA members can be especially important, as it could have an impact on either how CECL will be implemented or any potential wording changes to the standard. In the event sufficient evidence is presented that FASB views as requiring change, a separate exposure draft would be released and continued outreach performed to determine an acceptable solution. Although ABA does not currently predict this outcome and strongly believes that the life of loan loss concept of CECL will not change, the FASB has made changes to its yet-to-be-implemented “revenue recognition” standard, addressing both that standard’s effective date and certain very specific implementation issues. So, wording changes “around the edges” of the standard are theoretically possible.

[Return to top](#)

**Question 10: Should banks record higher ALLL now in order to mitigate the impact of CECL?**

Early adoption of CECL is not allowed until 2019. Both the SEC and banking agency personnel have cautioned bankers against ramping up for CECL. Auditors have also warned the ABA that bankers must maintain allowances for incurred loan and lease losses in compliance with current GAAP in order to maintain an unqualified audit opinion.

[Return to top](#)

**Question 11: Now that the new standard is issued, what should a bank do now?**

The new standard has an effective date of 2020 for SEC registrants, January 1, 2020 for non-SEC public business entities (PBEs), and December 31, 2021 for non-PBEs.

ABA will continue its efforts to explore methods and related requirements on CECL estimates based on company size and product.<sup>1</sup> FASB has already formed a Transition Resource Group (TRG), made up of bankers, auditors, and regulators, that will address key questions brought up during the time of transition. We anticipate that some questions that have surfaced and will continue to surface through the ABA working groups will eventually be addressed by FASB's TRG.

**ABA Training**

ABA urges all bankers to become educated on CECL before making any decisions on CECL implementation. ABA is sponsoring seminars, conferences, and webinars during 2016 and is forming peer groups to discuss experiences between bankers and to explore the best ways to implement CECL. Check out ABA.com for more information or contact Mike Gullette (mgullette@aba.com).

**For SEC Registrants**

SEC registrants are required to disclose the impact of new standards, if estimable, beginning with the first quarterly disclosures after issuance of CECL. Considering the huge change that CECL represents, it may be difficult for banks to disclose the dollar impact before mid-2017. Further, since expectations on losses can change somewhat arbitrarily under CECL, an estimate of the impact on 2020 balances based on, say, June 2017 data can be dramatically different from an estimate of the same date based on June 2018 data. Further guidance from the SEC on the right amount and timing of disclosure will likely come as the effective date draws near.

**For Community Banks**

ABA warns that there remains uncertainty as to whether specific banks actually qualify for the delayed effective date of the non-SEC non-PBE. The non-PBE effective date of December 31, 2021 allows non-PBE banks to avoid filing CECL-based quarterly call reports until then. ABA

---

<sup>1</sup> Examples of such issues will be lifetime loss estimates newly required for held to maturity debt securities and revolving loan commitments.



has, however, heard differing interpretations from both bankers and auditors as to what qualifies as a PBE and what is considered “private”.

On top of this are the practical aspects of any change in accounting: although non-PBEs can wait until December 31, 2021 to record CECL estimates (rather than as of January 1, 2021), the cumulative adjustment to the opening balance (as of January 1, 2021) will need to be reflected in the December 31, 2021 financial statements. Thus, a CECL process will likely be needed prior to or soon after 2020 in order to have an auditable January 1, 2021 balance. Loss expectations (including forecasts of future economic conditions) could change significantly if a bank waits too long, thereby diminishing the credibility of yearly results if the CECL estimate is not accounted for on a contemporary basis.

ABA has written a [discussion paper \*Definitions of Private Company and Public Business Entity\*](#) to assist bankers in beginning the discussion with their auditors of whether they qualify as a PBE.

[Return to top](#)

## **CECL STANDARD SPECIFICS**

### **Question 12: Does CECL get rid of individual loan impairment assessments?**

No. Like today, banks can evaluate and measure expected credit losses on individual loans when the loans have unique credit characteristics. While it is conceivable that specific unimpaired loans that are now individually evaluated may be required to be included in a pool under CECL, because they possess key credit characteristics common to others, these circumstances could be rare and practice would not change from today.

The practice of individually evaluating impaired loans could also continue, even though the measurement objective for impaired loans and unimpaired loans is the same under CECL (under current GAAP, impairment on loans individually evaluated as impaired is currently measured on a “FAS 114” present value of expected cash flows basis, whereas impairment on loans not individually identified as impaired is measured on a “FAS 5” probable/estimable basis). CECL does not explicitly state that impaired loans should be measured individually. However, implementation examples note that impairment may be a unique credit characteristic that is sufficiently significant to warrant exclusion of a loan from a pool of other similar unimpaired loans.

CECL provides a definition of a “collateral dependent” loan, which qualifies for the practical expedient of measuring impairment based on fair value of the underlying collateral. The new definition largely conforms to how an impaired collateral dependent loan is considered in practice today.

[Return to top](#)

**Question 13: Does CECL get rid of accounting for Troubled Debt Restructurings (TDRs)?**

No. However, TDR accounting should no longer result in significant impairment measurement differences, as they do today, as CECL requires the recognition of all future losses on both TDRs and non-TDRs. Bank analysts and other investors have expressed their interest in the disclosures of TDR activity. As a result, CECL retains the TDR disclosure requirements. Therefore, procedures to identify and monitor TDRs will continue.

[Return to top](#)

**Question 14: Does CECL change purchase accounting?**

FASB is repairing the accounting for purchased credit-impaired (PCI) assets, using a “gross up” method that effectively creates an ALLL upon purchase. After purchase, no longer will there be an explicit forecast of specific future cash flows or ongoing changes to the effective yield, as are currently required. This will greatly simplify the ALLL process and help investors who like to analyze allowance coverage ratios and net interest margins.

While there still remain similar issues for those non-impaired purchased loans (as those loans will continue to be initially recorded at fair value with no ALLL), FASB has included further guidance that indicates the number of loans that will qualify for this “gross up” method will greatly expand (in contrast to the current PCI term used today, CECL refers to assets purchased with credit deterioration – PCD), thus significantly alleviating the problem.

[Return to top](#)

**Question 15: CECL is also for debt securities? Does it get rid of OTTI?**

The CECL standard addresses both held to maturity (HTM) debt securities and available for sale (AFS) debt securities. The CECL model, however, applies only to HTM securities – an expected credit loss is recorded at the time of purchase. For practical purposes, expected losses on Federal government securities and those of government sponsored enterprises are likely to require little to no analysis with no expected loss recorded. For credit losses on other rated HTM securities, some banks may rely on statistics based on long-term rates by an agency such as Moody’s.

Accounting for other than temporary impairment (OTTI) for AFS securities is changing. The currently required direct write-down of an estimated credit loss from OTTI will be recorded as an allowance under CECL, meaning that any improvements in credit risk may be recovered immediately through an adjustment to the allowance for AFS credit allowances (similar to loan loss allowances). As a result, the reported after-OTTI interest yield will be consistent with the yield prior to OTTI.

There will also be a limitation of the allowance recorded for OTTI on AFS securities: the allowance for credit losses will be limited to the unrealized fair value loss on the security. This is because if the expected credit loss is higher than what might be experienced by merely selling the security, the bank would likely sell. [Return to top](#)

## **CECL OPERATIONAL CONCERNS**

### **Question 16: I currently perform stress testing for DFAST. Can I just use my DFAST models?**

CECL could be viewed as a good basis for both DFAST and CCAR testing by banking regulators, and banking regulators might supervise these banks to integrate the models. But while CECL may be a good basis for DFAST and CCAR testing, some current DFAST and CCAR models may not necessarily comply with CECL. This is because DFAST and CCAR testing are based on open books of business in which new loans are being made and existing loans payoff throughout the stress testing period. In contrast, CECL is an estimate of one specific set of loans at a specific date. Therefore, loss forecasting methods maintained by some banks used for DFAST and CCAR purposes may apply annualized loss assumptions used today instead of life of loan assumptions required for CECL. Therefore, bankers may want to discuss this with their auditors and examiners prior to making any decisions related to CECL implementation.

[Return to top](#)

### **Question 17: My bank already performs forward-looking credit loss estimates. Can I just do what I've been doing?**

Probably not. Currently, historical experience used as a basis for the starting point of an estimate of incurred loss is almost always based on annual charge-off rates. Under CECL, life of loan, or life of portfolio loss experience will be required. Therefore, the data that will be needed under CECL is different. Most banks do not retain the life of loan credit loss data needed. So, these banks will need to both request historical data from the core loan system provider and implement changes to their processes in order to collect it going forward.

Additionally, the application and measurement of adjustments made to historical experience related to qualitative (“Q”) factors will change profoundly under CECL. As noted in the 2006 Interagency Policy Statement on the Allowance for Loan and Lease Losses, Q factors are analyzed and quantified in order to adjust historical loss rates for the difference between conditions that existed over the period that historical credit loss rates are accumulated during the process up to the reporting date. With CECL, no longer does that time period stop at the measurement date, but it continues to the end of the contractual term of the loans in the portfolio.

Of course, the end of the contractual term will necessitate a forecast of future economic conditions, and different loans may perform differently over time based on a bank’s forecast of economic conditions. For example, many bankers expect interest rates to increase over the next couple of years. Additional Q factor analysis will likely take into account that:

- Future interest rate increases will affect variable-rate loans differently from fixed-rate loans.
- Forecasts of losses on those variable-rate loans will differ for those that mature within the next year compared to those that will be outstanding for the next two to three years.

- Borrowers with lower credit ratings will perform, over time, differently to such interest rate changes than those with higher credit ratings.

Analysis to develop Q factor adjustments will likely become more granular under CECL, and that analysis can be complicated. The Federal Reserve has even noted in its recent *Community Banking Connections newsletter* that bankers may want to review correlations of credit losses to historic data. Considering the long-term nature of the forecast, Q factor adjustments will likely have a much greater impact on capital than they currently do, and small changes to a Q factor could often be the difference between paying a dividend or not. So, even in simple portfolios, the Q factor analysis may need to be more thorough than what is currently needed.

These two factors – granularity and materiality – could become a bitter recipe for complexity. So, while it may seem as though bankers can use the same processes to estimate the ALLL as used today, bankers may want to approach CECL implementation in a manner that differs from today’s practice.

For more discussion of the challenges of CECL, please read the ABA discussion paper [CECL Challenges: The Life of Loan Concept](#).

[Return to top](#)

### **Question 18: I’m a small bank. Does CECL require complex analysis?**

Contrary to belief among certain bankers, nowhere in FASB’s CECL proposal was there a requirement to use complex modeling systems or apply any specific method to estimate credit losses. After all, FASB rarely writes standards that prescribe specific methods or models. Therefore, the final CECL standard similarly reflects no prescriptive guidance with regard to models. Further, at a private workshop held by the ABA to discuss how smaller banks might implement CECL (prior to CECL’s issuance), FASB members, as well as staff from the SEC, PCAOB, auditing firms, and banking agency accounting divisions all agreed that the complexity and sophistication of the CECL analysis should be consistent with the complexity and sophistication of the bank itself.

That said, the issues discussed in the previous question related to “Q factors” indicate that more sophistication and detail than what is practiced today may be desired by some bankers. More detailed analysis may be needed merely to address common questions board members, investors, or customers may ask. For example, if loss provisions decrease even while delinquencies increase (ABA staff believes this could be a common occurrence), further explanations of this directional inconsistency may be needed by users of a bank’s financial statements. The quantitative impact of a forecasted change in economic factors will also be of significant interest to board members and auditors. Considering the long-term nature of the CECL estimate, small changes in assumptions will generally have a much greater impact on capital and could often be the difference between paying a dividend or not. So, even in simple portfolios, the Q factor analysis will may need to be more thorough than what is currently performed.

For a more detailed discussion of the challenges of CECL, please read the ABA discussion paper *[CECL Challenges: The Life of Loan Concept](#)*.

[Return to top](#)

**Question 19: What CECL measurement methods should our bank use in estimating the ALLL?**

The first criteria in determining the appropriate credit loss measurement method is how it conforms to the bank's credit and risk analysis processes. The amount of "expected loss" in a portfolio should be driven by that credit analysis and not merely a calculation made to comply with GAAP.

While some believe certain methods may be applied best to certain consumer loan portfolios, and other methods are better for commercial portfolios, ABA staff believes different methods and analysis provide different aspects of a more comprehensive credit risk analysis. For example:

- Vintage analysis of charge-offs may best enable analysts to observe how underwriting standards and the economic cycle impact a current loss expectation.
- A credit migration analysis (which shows how loans of a certain credit rating or delinquency status result in historical losses) may help analysts observe how deteriorating credit performance may provide risk not yet perceivable in an analysis that solely includes charge-off data.
- Tracking defaults and loss severity patterns may help analysts estimate exposure in collateralized loans and also supplement observations from credit migration analysis. Such analysis may also assist evaluating whether temporary trends warrant long-term credit loss rate adjustments.

With this in mind, bankers should also remember that current practice in the ALLL estimate has evolved over forty years. It is likely that CECL practice will evolve, so excluding certain specific methods at the outset may be regretted later. It is important to have open and frequent communication with your board of directors, your regulators, and your auditors to discuss any planned methods or analysis. Therefore, ABA recommends that all measurement options be left open at this time.

[Return to top](#)

**Question 20: I have a small bank with relatively little loss experience. Except for the financial crisis, my losses are very limited. What am I supposed to do?**

One of the most important things to remember as you implement CECL is to have open and frequent communication with your board of directors, your regulators, and your auditors. Any plan on CECL should be vetted through them. Based on the private workshop held by the ABA prior to CECL's issuance, FASB members, as well as staff from the SEC, PCAOB, auditing firms, and banking agency accounting divisions expect small banks to collect the internal data

needed to perform CECL estimates. So, changes to your systems will not be avoided. However, they certainly do not expect sophisticated analysis.

“Clumpy” loss performance (several years of little or no loss, followed by a year or two of acute losses) is not unique to small banks and is a challenge for all banks. Of course, the important thing is to coordinate any CECL estimates through the credit analysis department. However, vintage analysis may be a tool identifying the extent of cyclicity in losses, as well as (for collateral-based lending) historic relationships of loss to loan-to-value ratios. ABA is forming industry peer groups to explore solutions to such challenges as these. Send a message to [mdockery@aba.com](mailto:mdockery@aba.com) if you would like to join such a group.

Where there is a lack of volume that achieves a critical mass to sufficiently limit the reliability or precision of such an estimate, banks are expected to refer to externally-obtained peer or market-based data, adjusted for qualitative factors unique to their local communities in order to best arrive at a company’s specific estimate. ABA is exploring options where banks can obtain such information in a cost-effective manner and will keep members up to date on any developments.

[Return to top](#)

**Question 21: How many years of loss data will I need to do my CECL estimates? Will we use averages of three to five years as we do today?**

For more discussion of the challenges of CECL, please read the ABA discussion paper *CECL Challenges: The Life of Loan Concept*.

Under current accounting, recent experience is assumed to be a good starting point for estimating an incurred loss. That assumption is not necessarily appropriate under CECL. Because CECL uses “life of loan” rather than annual “years of data”, focusing on calendar years of data could lead a banker to an inappropriate conclusion regarding what historical experience and data are appropriate. For example, using the most recent ten years of annual data to estimate losses on a ten year term loan portfolio may not be appropriate, since the economic conditions and underwriting standards that reflected the results during those ten years may be as old as fifteen to twenty years. Depending on the loss and credit migration patterns experienced by the portfolio, many may believe that use of those ten years of data would require greater than necessary analysis of the impact of the different economic conditions experienced and underwriting standards used throughout the ten years. It may be easier, instead, to base estimates on past vintages that were active during comparable points in the economic cycle or issued with similar underwriting standards.

The Basel Committee issued a document in 2015 on accounting for expected credit losses which indicates that regulators will expect at least one economic cycle of data to be maintained. However, maintaining data and relying upon data are two different concepts. As just noted, since expected losses are built on expectations and expectations may often be built on underwriting or points in the economic cycle, the historical data that bankers rely on for many loss expectations could actually be selected on a vintage by vintage basis.

Given that there is no consensus yet on the use of historical data, ABA is forming industry peer groups to explore solutions to such challenges as these. Please contact [mdockery@aba.com](mailto:mdockery@aba.com) to join one of these groups.

[Return to top](#)

### **Question 22: Will I need to maintain a data warehouse? What data is needed?**

As CECL does not prescribe specific methods, the standard does not prescribe what tools are needed to comply with CECL. A data warehouse is merely a central repository of integrated data from one or more disparate sources. There is no doubt that a data warehouse will be needed, no matter the size. This “warehouse” could be a piece of paper, an Excel spreadsheet, or a sophisticated database residing on a cloud computing platform.

Of course, under such a definition, a data warehouse exists within the current incurred loss allowance estimation process. However, due to the reliance on annual charge-off rates, the size of the database is relatively limited. In a CECL warehouse, such a database needs to include more data for a much longer period of time. Currently, banks hold limited historical information on loans that have either paid off or been charged-off. Under CECL, bankers may want to maintain such data for a minimum of an economic cycle.

Some bankers may want to better integrate their systems. Underwriting, origination, modification, loan review, workout/recovery/OREO systems will likely need to be linked and “audit ready”, meaning that the information should essentially be tied to each loan. While it is theoretically possible that a bank could limit the data points needed to perform a specific CECL calculation, other data will likely be needed for practical purposes in order to appropriately analyze the credit risk each quarter. This data can include:

- Origination dates
- Maturity, renewal, and TDR dates
- Fixed versus variable rate indicators
- Current collateral values
- Ongoing changes to credit risk status (including delinquency, credit ratings, nonaccrual status)
- Data likely to be needed to provide quantitative support to forecasts of the future (local real estate price indices, unemployment rates, etc.)

Banks may also want to consider tracking and maintaining individual cash flows for certain kinds of loans, such as corporate lines of credit, as future draws on many lines of credit will need to be forecast. While it is unclear at this point how the ALLL on many loan products will be measured, such data can be very helpful as supplemental analysis. Unfortunately, tracking of much of this (initial and ongoing credit risk ratings and delinquency status on a life of loan basis, for example) can be very data intensive.

[Return to top](#)

**Question 23: For a 30 year mortgage portfolio, does CECL require 30 year forecasts?**

Not really. Under CECL, a forecast of losses over the *contractual* life of the portfolio is required. So, the 30 years of the portfolio must be accounted for. Data may show, however, that due to prepayments, the average life of your residential mortgage portfolio is approximately seven years. Other data may show that after seven years, losses in your portfolio are minimal. CECL would then require a forecast only for that time period. So, no – bankers won’t likely be performing 30 year forecasts for CECL purposes. To the extent that bank use asset/liability management systems to estimate the lives of their portfolios, those ALM systems may become subject to audit, since loan lives will become more important in the auditing of the ALLL.

ABA staff and members of all sizes told FASB that we can forecast somewhat reliable losses for only a year or two in the future. To attempt to accommodate this in a life of loan model, CECL allows the use of unadjusted historical averages for the periods after which the bank cannot make a reasonable and supportable forecast. While this sounds easy, it should be noted that a simple “loss rate” method of credit loss estimation does not distinguish the timing of losses. Therefore, in many circumstances, using historic averages past this “forecastable future” may require vintage-based analysis (analyzing loans based on the period they were originated) and/or maturity-based analysis (analyzing loans based on when they will mature) in order to minimize possible double-counting of credit losses estimated during the forecastable future period.

[Return to top](#)

**Question 24: Professional economists rarely forecast the GDP accurately, yet FASB expects me to? How will auditors test my forecasts?**

FASB understands that forecasts are never precise. Yet, the “life of loan loss” concept requires a forecast of the future. At one point, the FASB considered requiring that banks assume economic conditions would not change. Bankers voiced concern that such an assumption is unreasonable. No one would assume, for example, that the financial crisis would continue forever.

Bankers make forecasts of the future in their budgeting, capital plans, and asset/liability management processes. Most important, in some banks, certain forecasts of future economic indicators are baked into the pricing of deposits and loans, and are embedded into loan reviews. FASB has said it is merely requiring banks to use the forecasts currently used in operations, and auditors have told ABA staff that their audit procedures will not necessarily focus on how accurate the forecasts are, but on how the forecasts are used elsewhere in the bank.

For practical purposes, some banks may decide to start with forecasts published by the Federal Reserve or by other economic forecasting organizations. Of course, a community bank will then adjust those national or regional forecasts to those bank management sees in the local community.

At a private workshop held by the ABA to discuss how smaller banks might implement CECL (prior to CECL’s issuance), FASB members, as well as staff from the SEC, PCAOB, auditing



firms, and banking agency accounting divisions all agreed that the complexity and sophistication of the CECL analysis should be consistent with the complexity and sophistication of the bank itself. Therefore, small banks are not expected to perform sophisticated analysis to forecast future economic conditions. However, the resulting forecast of economic conditions should be consistent with assumptions used in other aspects of the business (capital planning, asset/liability management, etc.). Auditing firm representatives have told ABA staff that if interest rate increases are used in the bank's pricing tables, they would expect to see those increases considered within a CECL estimate, as it would not be appropriate for a bank to use assumptions in one aspect of the business that are contradicted by assumptions used for CECL.

Even with these practical application considerations, the inherent inaccuracy of forecasts of future economic conditions will likely add to the volatility of the CECL estimate. The life of loan loss estimate represents a bigger "playing field" than the incurred loss "playing field". So, small changes in assumptions can make very large changes to loss estimates. Not only will the quantification of those assumptions likely require detailed analysis and documentation for auditors, but bankers may want to actively evaluate the sensitivity of their estimates on the resulting volatility on capital. This may result in additional capital buffers.

[Return to top](#)

## **APPENDIX: THE FASB PROCESS AND THE NEED FOR A NEW MODEL**

### **Question A1: What was ABA's role during the CECL development process?**

ABA was an active and leading voice for the banking industry during FASB's project to evaluate loan losses, even back to 2010. In addition to countless formal and informal meetings, ABA was the focal point for the industry's feedback on the various different impairment models evaluated by FASB (see question A2) and also published the discussion paper [\*CECL Challenges: The Life of Loan Concept\*](#) to highlight the biggest issues banks will face in executing the CECL model.

ABA warned FASB of misunderstandings about CECL and called for public roundtables several times since January 2014.<sup>2</sup> ABA participated in each of FASB's large bank and community bank workshops held in 2014 and 2015, which included bankers, credit union and insurance company personnel, auditors, and regulators, as well as the February 2016 community bank roundtable. In each discussion, ABA was the only consistent voice that pointed to the inherent operational challenges posed by the life of loan loss concept of CECL.

ABA also reviewed and provided FASB with comments to each of the various staff drafts of CECL. During its September 2015 review of FASB's "fatal flaw" document, ABA's review of the draft resulted in 49 comments – seven "fatal", including the general CECL concept of estimating a life of loan loss by smaller financial institutions.

Because of ABA concerns about whether CECL was scalable to all sizes of banks, ABA held a workshop in March, 2016, which included bankers, auditors, banking regulators, SEC, and PCAOB. Although no specific procedures were developed, the banking regulators, the PCAOB and the SEC all said that CECL is scalable, meaning that the expected sophistication of the CECL analysis should coincide with the level of sophistication of the institution. This is important as we move forward with implementation, as it has been noted that those regulators could be the barrier to scalability.

[Return to top](#)

---

<sup>2</sup> ABA staff and ABA members have had discussions with FASB and their staff members many times since CECL was first proposed. However, a list of letters to FASB Chairman Russ Golden that address CECL complexity includes:

- ABA's January 24, 2014 letter (Upon FASB's December decision to proceed with CECL): <http://www.aba.com/Advocacy/commentletters/Documents/Impairment-ABA-letter-FASBJan242014.pdf>
- ABA's July 22, 2014 letter (Upon completion of the 2014 private workshop): <http://www.aba.com/Advocacy/commentletters/Documents/Impairment-ABAletterFASB-June2014Workshops.pdf>
- ABA's January 13, 2015 letter (A further call for a meeting to resolve known misunderstandings): <http://www.aba.com/Advocacy/commentletters/Documents/ImpairmentABAWorkshoplettertoFASBJan2015.pdf>

**Question A2: Did FASB examine other impairment models?**

As part of a project that started in 2010, and largely working alongside the IASB until 2013, FASB reviewed and received feedback on several different impairment models. Impairment models that were formally proposed by the standard setters include:

- The ABA-endorsed “Banking Industry Model” (BIM): The BIM, which largely retains current practice, but expands the language in the incurred loss model to require banks to estimate foreseeable losses. This would result in larger reserves than a strict incurred loss approach. (A FASB representative has publicly referred to current practice as “incurred loss plus”.) The BIM provides for foreseeable losses that are in the portfolio, but does not require a life of loan loss analysis. Thus, it is effectively an estimate of what banks expect to lose on their loans, which is what we believe investors want. Further, the BIM provided for highly judgmental allowances that are not perceivable through current credit metrics. This provision, known as the Credit Risk Adjustment, was meant to provide for losses that may occur as a result of things such as a turn in the economic cycle. The BIM was rejected by FASB, due to concerns about inconsistency relating to how long the foreseeable future would be.
- IASB’s Present Value of Cash Flows Model: The loan balance, net of the ALLL, represents the present value of expected future cash flows. This model was rejected by both IASB and FASB, as it was considered too operationally complex for virtually all banks to implement.
- Initial FASB Expected Cash Flows Model: Proposed in 2010, FASB’s initial model was largely lost because of the focus at that time – and the heated debates – on fair value accounting. However, the proposal included specific unacceptable features such as the requirement that the current economic environment must be assumed to stay the same into the future in estimating losses, and that interest income recognition would be constantly adjusted, based on the expected loss estimate. (The proposal was introduced as the Financial Crisis was ebbing. Therefore, many argued that the current 8 percent unemployment rate should not be assumed to last for thirty years.)
- Time Proportionate Allocation (TPA): Lifetime expected losses on loans without significant credit deterioration (also referred to those residing in the “good book”) would be amortized over their expected lives. Lifetime losses on the remaining loans (“bad book”) would be recorded. This model was rejected for two reasons. First, both forecasting lifetime losses and determining and supporting the appropriate amortization rate for good book loans were considered too operationally complex. Second, economic cycles are typically characterized by several years of slow growth, followed by a short period of an acute downturn. Amortizing loan losses would then likely delay loss recognition during downturns. Delaying loss recognition was unacceptable to FASB.
- While details are not available on the model endorsed by the Independent Community Bankers Association, it is intended to apply to banks that have \$10 billion or less in assets

and attempts to match loss recognition with that of interest income recognition. As a result, this model appears to somewhat resemble the TPA model.

- **Foreseeable Future:** Losses expected in the foreseeable future would be recorded. This was rejected by IASB because of fears that losses would be recorded too soon.<sup>3</sup> It was later rejected by FASB, due to concerns about inconsistency on how long the foreseeable future would be.
- **Higher of TPA and Foreseeable Future:** Due to the different concerns of IASB and FASB, a hybrid model was proposed, but rejected by both boards, as it required twice the operational complexities, though was half as explainable to users of financial statements.
- **Three Bucket Model:** This is the model eventually approved by IASB and now known as IFRS 9. Losses on loans with no significant increase in credit risk since origination (stage 1 loans) are based on a 12 month probability of default. Losses on loans with a significant increase in credit risk (stage 2) are measured at a lifetime loss. Lifetime losses are recorded on impaired loans (stage 3). In addition to huge complexities and data requirements in measuring “significant increase in credit risk”, it was believed that ALLL balances would decrease in the U.S. compared to current GAAP. This was unacceptable to banking regulators as well as to many bankers. Further, these balances would become more volatile due to arbitrarily small triggers foreseen in transferring loans from one bucket to another.

[Return to top](#)

### **Question A3: Will CECL prevent or diminish future financial crises?**

CECL is not written for bankers to forecast future financial crises. Although the process that has resulted in CECL was initially precipitated by the Financial Crisis Advisory Group (FCAG), less volatile (and, thus, less procyclical) bank earnings is not an objective of CECL. In fact, the FCAG warned against “earnings management,” which is often associated with less volatile earnings. Any argument that CECL would have prevented the Financial Crisis because banks would have recorded allowances earlier is naïve. Within this line of reasoning, banks would likely have limited the growth of their portfolios because of the capital strain of foreseeable turns in the economic cycle and resulting losses on high risk mortgages. In fact, using forward-looking forecasts of the future could well have made things worse. Two-year economic forecasts of economic growth performed by the Congressional Budget Office for 2007 were 4% higher than the actual rate (a forecasted increase of over 2%, though the actual growth was almost a negative 2%).<sup>4</sup> Therefore, it is highly unlikely any future losses forecast in 2005 would have come anywhere near the actual losses that occurred.

---

<sup>3</sup> See further discussion related to the differences in current loss provisioning between U.S. and European banks during the discussion of international convergence.

<sup>4</sup> 2007 is the year many people believe was the start of the financial crisis. Other blue chip consensus forecasters did not fare much better, per CBO’s own report. See [https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49891-Forecasting\\_Record\\_2015.pdf](https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49891-Forecasting_Record_2015.pdf)

Sadly, economic forecasts are often unreliable, and CECL's requirement that forecasts of the future be based on reasonable and supportable evidence could cause some bank forecasts to largely conform to those of unreliable forecasting organizations. [Return to top](#)

#### **Question A4: Does CECL achieve convergence of World-wide Accounting Standards?**

No. During joint deliberations with the IASB, FASB examined many different impairment models to replace its incurred loss model. In addition to operational concerns with the impairment model that was eventually approved as International Financial Reporting Standard (IFRS) 9, it is widely believed that implementation of IFRS 9 would result in decreased allowance levels in the United States. Among other things, most believe that IFRS 9 requires continuous probability of default/loss given default (PD/LGD) analyses on both a one-year and lifetime basis. In addition to the fact that only a very small number of banks in the U.S. currently perform PD/LGD analyses, the specific related requirements in IFRS 9 would operationally challenge all banks, no matter the size.

[Return to top](#)

#### **Question A5: Are there currently different impairment standards between IFRS and GAAP?**

Within the current IFRS and GAAP incurred loss models, loss provisioning guidance for impaired loans – those in which the full principal and interest is not expected – appears to be consistent, as both models use life of loan losses for impaired loans. However, for loans that are not impaired, CECL and IFRS (at least, in Europe) differ.

In the application of the incurred loss model under current GAAP, U.S. banks record an ALLL that essentially represents losses that are incurred but not reported (IBNR). Such ALLL amounts are often based on annualized charge-off amounts, adjusted for various factors that are ultimately intended to reflect all losses currently in the portfolio. In contrast, practice related to IAS 39 (the IFRS version of incurred losses prior to IFRS 9) has emphasized that impairment losses are incurred “if and only if there is objective evidence of impairment”.

A 2012 report by Fitch indicates significant differences between U.S. banks and European banks in how IBNR losses are addressed. The Fitch report showed that 68% of total ALLL balances for U.S. banks as of December 2012 were IBNR, versus 28% of for major European banks. In other words, ALLL balances for IBNR were over twice the size in the U.S. as in Europe. While there were conceptual and operational arguments made during the FASB/IASB impairment deliberations related to IFRS 9 and CECL, one cannot help but assume that the incremental allowances that would result from CECL for European banks were a “bridge too far”. All other things equal, this would indicate the “too little too late” recognition of losses with the incurred loss model was a much bigger problem in Europe than in the U.S.

[Return to top](#)

**Question A6: But weren't "too little too late" allowances real problems in the U.S. during the Financial Crisis? Isn't that why we had Congressional hearings in 2009?**

Though often referred to as the “mark to market accounting” hearings, the Congressional hearings held in March 2009 addressed Other Than Temporary Impairment (OTTI) on debt securities held by banks. Prior to FASB’s changes to OTTI accounting made after the hearing, losses on impaired debt securities were based on market prices, which were temporarily and abnormally low, due to a freezing of debt security markets. And, OTTI accounting required permanent write-downs with no ability to reverse the loss when the market recovered.

Many believed that such losses caused a further downward spiral in both market prices and in overall banking lending, deepening the Financial Crisis. ABA requested that FASB repair OTTI accounting by dividing the market value loss between credit loss (to be recorded as an expense) and other market loss (to be recorded as a reduction in other comprehensive income). FASB agreed, and modified OTTI accounting in 2009, and it is largely maintained in FASB’s CECL model, as it provides meaningful information to investors.<sup>5</sup>

[Return to top](#)

**Question A7: How big was the “too little too late” issue in the U.S.?**

In the U.S., there is little disagreement that impairment of loans and debt securities should be recognized on a timely basis. Critics of the “incurred loss” impairment model cite two main issues: 1) the process of identifying specific loss events is difficult, and 2) the combination that the loss must be both “probable” and “reasonably estimable” is a high threshold that often leads to delayed loss recognition.

Both of these criticisms are legitimate, yet, for practical purposes, irrelevant. Actual practice of the incurred loss model is guided by longstanding interpretations by bankers, banking regulators, the SEC, and auditing firms, and is interpreted more broadly (resulting in higher ALLL) than the actual wording of the rules might imply. In other words, bankers do not normally document that loss events have occurred for each loan nor do they explicitly attempt to prove that such losses are probable and reasonably estimable. In practice, IBNR allowances are assessed for pools of loans, using models that are largely based on historic charge-off data, adjusted for factors that are meant to convert historic past experience into the estimated ultimate future charge-offs of loans in the current portfolio. These models are subject to regulatory “model risk” validation and back-testing requirements that are meant to ensure an acceptable level of reliability within the models.

Over time, there have been different interpretations of the incurred loss model, with regulatory bodies not necessarily consistent in their interpretations. The most notable and surprising one was in the 1990s, when the SEC required SunTrust Bank to restate its earnings from 1994-96,

---

<sup>5</sup> It should be noted that subsequent to the March 5, 2009 announcement of the Congressional hearing, bank stock prices had risen 26% by the hearing date and rose another 28% by the end of the bank earnings reporting season.

lowering its ALLL by \$100 million. In a report published through The Federal Reserve Bank of Richmond, Balla and Rose note that the SunTrust decision was associated with a lowering of allowances throughout the banking system in the years prior to the financial crisis.<sup>6</sup>

Over the years, practice evolved through bank examiners and auditors to emphasize significant support and documentation of adjustments made to the amounts that had been derived specifically from historical charge-off rates. The banking regulators issued guidance in 2006 to emphasize a more forward-looking ALLL estimation process.<sup>7</sup> However, since quantification of the impact of the factors involved significant judgment, it was often assumed by many that a heavy emphasis of forward-looking qualitative factors would lead to earnings management suspicions. Therefore, bright lines developed over time, constraining the amount that such factors could impact the total allowance (for example, provisions related to the qualitative adjustments could not exceed X% of the total estimate). Since historic loss rates were based on many years of benign loss experience, it appears the impact of the forward-looking qualitative factors espoused by the banking agencies was subdued.

Some would argue that a significant flaw in today's incurred loss model has been the requirement for heavy reliance on historic loss rates without permitting sufficient reliance on forward-looking, qualitative factors. Since the starting point for CECL will be historic loss rates, CECL could suffer from the same weakness. Due to the fact that the CECL estimates are meant to convey a longer "life of loan" analysis, the risk that qualitative factors will be subject to earnings management scrutiny – especially those factors reflected in forecasts of the future – could significantly increase.<sup>8</sup> Therefore, meaningful agreement will be needed by the SEC, banking regulators, auditors, and the PCAOB as to the acceptable levels of precision needed to support the very judgmental forecasts of the future.

[Return to top](#)

###

---

<sup>6</sup> Balla and Rose, *Loan Loss Reserves, Accounting Constraints, and Bank Ownership Structure*, November 2011. See also Balla, Rose, and Romero, *Loan loss Reserve Accounting and Bank Behavior*, March 2012. The authors also observe that quarterly loan loss provisions at publicly held banks were 47% higher than those at private banks pre-SunTrust, and only 35% higher post-SunTrust. In other words, the SunTrust action had a chilling effect on all banks, and it appears that this action had a larger impact on publicly-held banks.

<sup>7</sup> See 2006 *Interagency Policy Statement on the Allowance for Loan and Lease Losses*. Among the qualitative and environmental factors to be considered are changes in underwriting standards, changes in international, national, regional, and local economic and business conditions, changes in the value of underlying collateral, and concentrations of credit.

<sup>8</sup> See Balsubramanyan, Saman, and Thomson (2013). The researchers note that data from 2011 indicate that loan loss provisioning for all banks is forward-looking after the Financial Crisis.