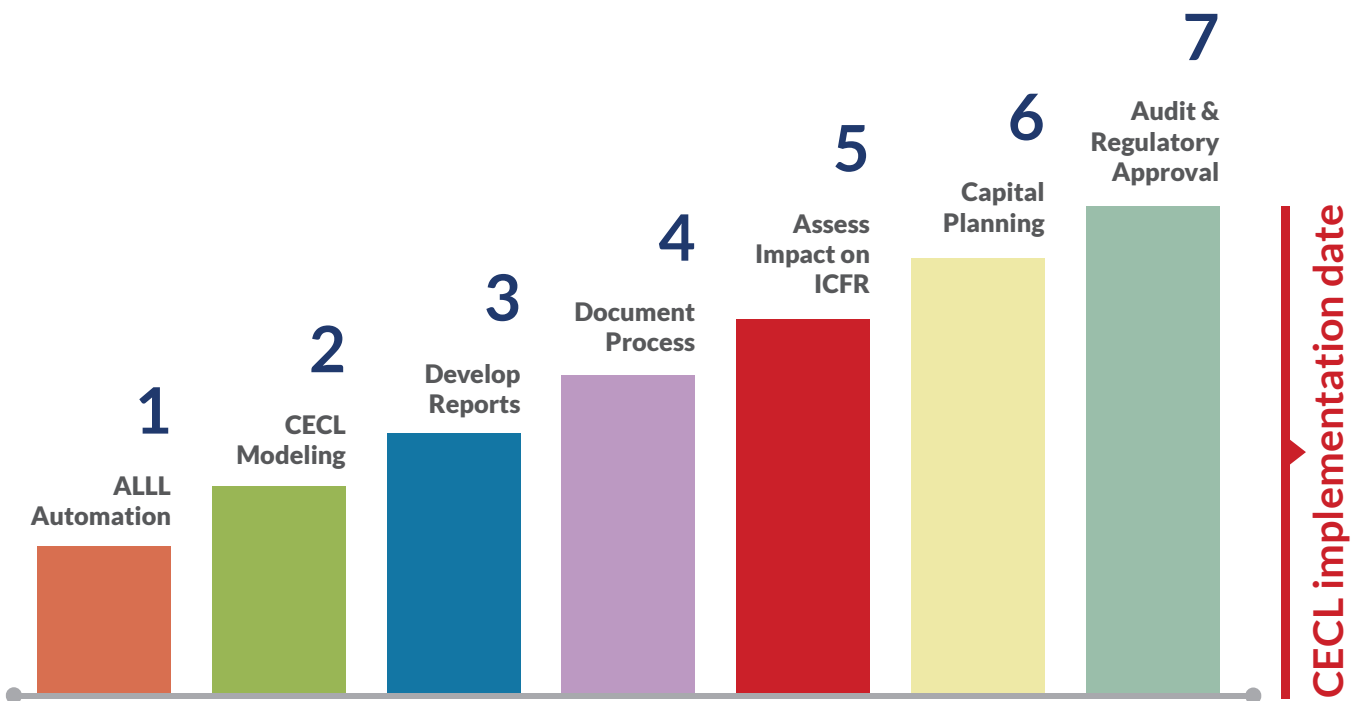


Seven Steps to a CECL-Compliant Model



Seven Steps to a CECL-Compliant Model

“This is not a tweak for anybody or any bank. You are not already doing it. Your allowance is not already sufficient to qualify under CECL. This is going to take a ton of work.”

*Steven Merriett
Chief Accountant
Federal Reserve System*

CECL is here. And the time to get ready for CECL is now. Your implementation date might be a few years away, and there's a reason that the Financial Accounting Standards Board (FASB) has scheduled those years out: to give banks the time they need to determine, test, and implement a CECL-compliant model or models.

“This is not a tweak for anybody or any bank,” said Steven Merriett, Chief Accountant at the Federal Reserve System. “You are not already doing it. Your allowance is not already sufficient to qualify under CECL. This is going to take a ton of work.”

Indeed, CECL is considered the most impactful banking regulation since Dodd-Frank. Analysts predict the core CECL requirement, to estimate lifetime expected losses for all loans from inception, will result in allowance increases; 93 percent of the respondents to MST's 2015 year-end banker survey agreed CECL will result in an increase in their allowance. Developing a CECL-compliant model means more than just selecting a new methodology. It means assembling and analyzing data on which to base decisions that will have an extensive, long-term, enterprise-wide impact on bank operations.

MST's sole focus is the allowance for loan and lease losses (ALLL), helping banks and credit unions implement technology to improve the accuracy and efficiency of their ALLL estimates. That includes following closely the development of the CECL accounting standard,

from FASB's introduction of the concept in 2011, through the years of development, refinements and adjustments in response to the input of the banking community. MST has turned its attention to developing a process that will help financial professionals through the arduous and extended process of getting ready for CECL.

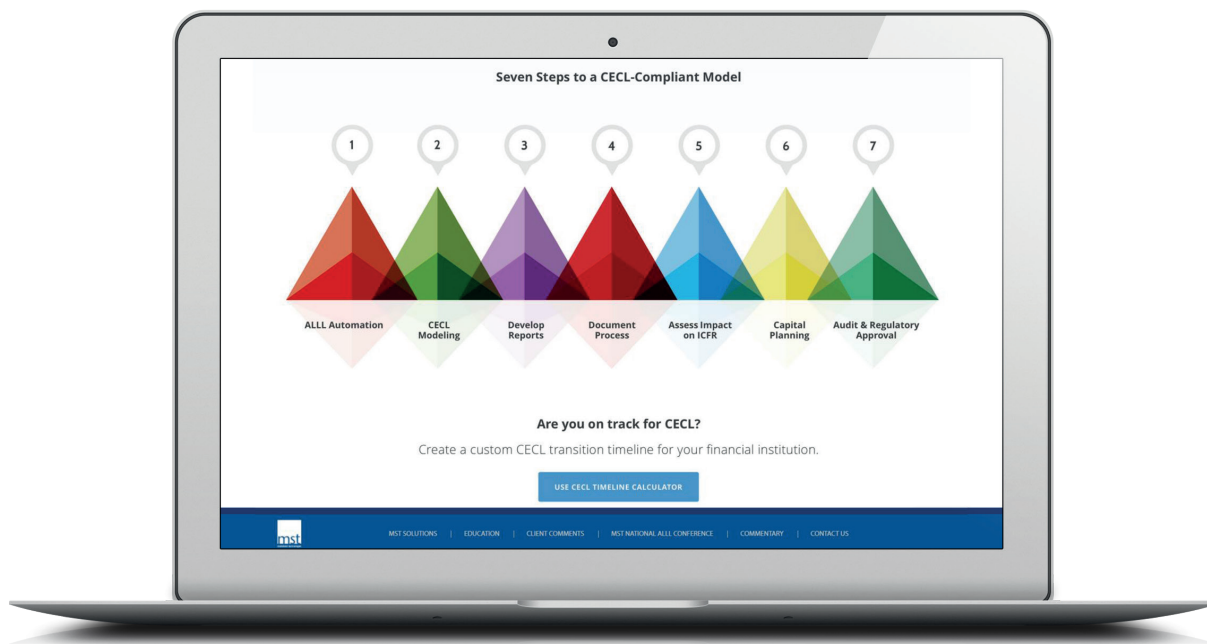
The result: a seven-step program and associated timeline to guide institutions through their process of developing their particular CECL-compliant models.

The idea began as a way for us to help MST clients through the implementation process, according to MST Executive Vice President John Closs.

“We wanted to be able to identify what each client needed to do to become CECL compliant,” he noted. “As it evolved, it became ‘What will any bank or credit union need to do?’ So we got input from some of the leading national accounting and auditing firms, then asked ourselves, ‘What is our role as developers of allowance estimation software and support?’”

What eventuated was an online tool that allows the financial institution to visualize its own timeline en route to a CECL-compliant model for estimating the allowance. In a graphically presented “calculator,” it proposes likely steps toward a compliant model and asks how long is needed to accomplish each step – and in the process, supporting

documentation that there has been due diligence in selecting and implementing a CECL-compliant allowance estimation methodology. The calculator can be found at www.mainstreet-tech.com and scrolling to the “Are You on Track for CECL” graphic on the Homepage.



The seven steps



Automating the allowance calculation process.



CECL modeling.



Developing reports.



Documenting processes.



Assess impact of ICFR.
(Internal Control over Financial Reporting)



Capital planning.



Audit and regulatory approval.

“The immediate, pressing need is to start gathering the right sorts of data,” Closs offered. “But you also have to recognize the follow-on impacts of CECL,” including:

- Address governance and controls.
- Documentation requirements will be revised.
- CECL is likely to impact capital negatively, so there will be capital planning or P & L decisions.

“The seven steps helps financial institutions organize their CECL preparations process,” he noted. “The timeline calculator helps them see the big picture.”



Step 1.

Automating the allowance calculation process.

CECL will require banks and credit unions to grapple with so much more data than does the incurred loss standard. To make projections about the future, you will need to assimilate more from the past, details and analysis on loans and loan categories and pools for several years past, plus economic data, to help you determine the fate of loans years into the future.

Over the years, Sarah Cowan of National Bank of Middlebury, Vermont, which counts \$330 million in assets, has managed the ALLL process by “downloading data from our core and integrating it into a whole bunch of Excel spreadsheets.”

But with CECL an impending reality, she decided Excel will no longer provide an acceptable allowance analysis. CECL and several other practical matters drove Cowan to begin exploring ALLL automation. “Most importantly, we wanted to reduce the

time and human resources involved with all these spreadsheets,” she explained. “We wanted a more consistent and process-driven methodology, fewer changes on the fly. We also wanted to include finance and our senior credit administrator in the process.”

Sixty-four percent of the respondents to MST’s 2015 banker survey find themselves in a similar situation as Cowan, still using Excel to calculate their quarterly allowance, and 66 percent of those agreeing they will convert to an automated system to estimate under CECL. A similar survey, by tax, audit and consulting firm RSM, found like results among 338 respondents: 73 percent still use Excel, 63 percent admit their current approach will be insufficient to calculate their allowances under CECL, and only 37 percent believe their “current system provides enough historical data to estimate life of asset losses and prepayment speeds.”

“Most importantly, we wanted to reduce the time and human resources involved with all these spreadsheets. We wanted a more consistent and process-driven methodology, fewer changes on the fly. We also wanted to include finance and our senior credit administrator in the process.”

*Sarah Cowan
Senior Vice President
National Bank of
Middlebury*

Is your institution public or private?

Public Private

1 How long do you anticipate ALLL automation taking place from review, vetting, purchase to implementation?

3 Quarters
Suggested time: 1 / Quarters





Step 2.

CECL modeling.

“You need a system that allows you to test different models, making changes in controls, projections, qualitative and quantitative factors, comparing results from different models to your current process and results.”

*John Closs
Executive Vice President
MST*

The benefit of converting to a more capable system, to move away from the manual process to something more streamlined, is getting in place a process toward a CECL-compliant model: defining interfaces, workflow, documentation.

“It is the starting point,” Closs offered, “to find out about the quality of your data, what gaps you have, and validate that all the necessary data points are there and clean. Then you have a platform on which you can move forward.”

With an automated system in place, the institution can begin to test various models. Will a loss migration model suffice or something like PD/LGD (probability of default/loss given default) be more appropriate?

Preparing for CECL will likely involve assessing multiple models.

“You need a system that allows you to test different models, making changes in controls, projections, qualitative and quantitative factors, comparing results from different models to your current process and results”, Closs explained.

In such “shadow analyses,” financial institutions run multiple calculations over multiple periods to see how various models respond depending on different variables, where markets are trending, where the bank or credit union is in its credit cycles. The desired result: a CECL-compliant model that best suits the institution and its portfolio.

2 How long will you allow for CECL modeling?

Aligning macroeconomic forecasts throughout the organization (i.e in capital planning and CECL) or documenting why they differ.

4 Quarters
Suggested time: 2-4 Quarters



Step 3. Developing reports.

Reports facilitate governance and oversight. A new model or methodology requires the bank or credit union to establish and document policy, how will the model be executed and who is responsible for execution and oversight.

“The person in charge must have the ability to mount an effective challenge to management’s estimate, that is, the output needs to be put in context,” offered Grant Thornton’s Graham Dyer who advised MST through the development of the seven-step process and timeline. “Each bank decides on its own metrics, but fundamentally needs to show how loans are migrating over time and over different risk categories. As they become riskier or less risky, is the allowance moving with them? The model must make sense in context of the bank’s credit portfolio.”

Dyer recommended an OCC document, “Detecting Red Flags in Board Reports”, specifically a chapter titled, “Reports Directors Should Receive Regularly”, which includes reports on loan portfolio, loan quality and ALLL red flags. “It’s a handy pamphlet that explains the types of information you need to give to your directors to allow them to see that your allowance and direction make sense.”

3 How long will you allow for developing reports to facilitate governance and oversight?

1 Quarters
Suggested time: 1-2 Quarters



Step 4.

Documenting processes.

“While all software breaks occasionally, Excel spreadsheets break all the time. But they don’t tell you when they break; they just give you the wrong number.”

*James Kwak
Associate Professor of Law
University of Connecticut
School of Law
Co-founder
The Baseline Scenario*

Preparing for CECL will involve rewriting and documenting policies, including how the model works and what the methodology is.

According to Closs, “Risk managers today are focused on controls: Who is responsible? What departments are involved? Everything needs to be very well documented.”

The institution must have a defined policy on internal controls and whoever touches the allowance must do so according to that policy.

While Excel “. . . is reasonably robust, the spreadsheets that people create with Excel are incredibly fragile. There is no way to trace where your data came from, there’s no audit trail (so you can overwrite numbers and not know it), and there’s no easy way to test spreadsheets, for starters,” writes author James Kwak, Associate Professor of Law at the University of Connecticut School of Law, and co-founder with Simon Johnson of the economics blog “The Baseline Scenario”. “The biggest problem is that anyone can create Excel spreadsheets – badly.”

But what’s unique about Excel? Doesn’t any software run the risk of a high error rate since all software is created by people, the beings that cause Excel spreadsheet errors?

“While all software breaks occasionally, Excel spreadsheets break all the time. But they don’t tell you when they break; they just give you the wrong number,” Kwak says.

And when Excel gives you the wrong number it may not surface until an audit or regulatory exam.

“Forward-looking information required by CECL is going to impact lifetime expected credit losses,” Dyer pointed out. “That will involve information that comes from outside the accounting function, perhaps from the credit function or chief risk officer, areas not necessarily used to documenting all views in a manner that would withstand Sarbanes-Oxley level scrutiny.”

Best estimates, Dyer added, will now exist as a key element in a crucial accounting document. The bank must document that it has considered all the right data to form its estimate.

“Even a good modeling process will raise auditor eyebrows if the internal controls are not clearly documented.”

4 How long will it take to document updated processes and controls?

1 Quarters
Suggested time: 1-2 Quarters





Step 5.

Assess impact of ICFR (Internal Control over Financial Reporting).

“Because loan originations will create immediate accounting events – loss expectations – under CECL, it is expected that additional detail processes will be required to ensure that factors underlying loss expectations are appropriately identified and tracked,” wrote Michael Gullette of the American Bankers Association in his paper, *CECL Implementation Challenges: The Life of Loan Concept*. “Such factors may include appraisals underlying loan-to-value ratios on collateral and analyses performed during underwriting. While work like this may currently be performed operationally at many banks, this is expected to be a new process with a financial audit, as it is not currently assumed that the loan origination transaction creates a loss expectation.”

Are your controls designed in such a manner as to prevent material misstatement? Are they operating as designed? If that’s not properly documented, your auditors and regulators will not be able to determine whether your CECL model is designed effectively.

“First, you must identify where your internal controls should be, then document that,” Dyer said. “Then match what they should be to what they are currently and supplement accordingly.”

Revising controls includes redeveloping and validating disclosures.

“Disclosures will all be different under CECL,” Closs noted.

“Vintage analysis may become the basis for credit quality evaluation,” noted the ABA’s Gullette. “Disclosures related to credit quality may need to expand to address each critical vintage. This could increase the current GAAP-based disclosures four-fold or more.”

For SEC-registered institutions, new disclosures will need to be developed to address changes in credit metrics, Gullette proposed. “Bankers, auditors and investors . . . must devise and rely on other types of metrics in order to evaluate the reasonableness of credit loss forecasts.”

Are your controls designed in such a manner as to prevent material misstatement? Are they operating as designed? If that’s not properly documented, your auditors and regulators will not be able to determine whether your CECL model is designed effectively.

5 How long will it take to assess the impact on ICFR (Internal Controls over Financial Reporting), identify gaps and address them?

1 Quarters
Suggested time: 1-2 Quarters



*➔ Step 6. Capital planning.

The likely increase in allowance resulting from a CECL-based estimation will have enterprise-wide impact, reaching into all corners of the institution.

One result might be a change in the profile of your loan portfolio. Lifetime losses in some categories might impact your allowance to the degree that you move away from certain types of loans to avoid potential or expected future losses.

“The lifetime expected loss for your portfolio delivered by CECL will become the key driver in your capital planning process,” Dyer said, “and beyond capital planning to liquidity planning and budgeting.”

Dyer suggested banks consider stress testing their ALLLs for different economic conditions.

“If you have different views about future conditions than are in the allowance, or different estimates of future losses used for capital liquidity planning, then you’ll want to be able to reconcile why those differences are appropriate.”

As well, he pointed out, if stress testing under different economic scenarios, like unemployment rates, produces an ALLL amount different from your estimate, you must be able to explain the difference.

6 How long do you need for capital and/or P&L planning?

2 Quarters
Suggested time: 2-4 Quarters



Step 7.

Audit and regulatory approval.

Your auditors will want to see that your model meets CECL guidance – FASB’s guidance but also follow-up guidance from the OCC – and that it is in line with GAAP. They want to see that it is fundamentally sound.

“On the front end, we want to know what the plan is, how is the bank going to go about developing a model,” added Walter McNairy a senior partner at Dixon Hughes Goodman, LLP (DHG). “We want to see that you have the right people in charge, that they have had the training and understand the requirements.

“The next question is about the data,” he continued. “Do you have enough data from your core system to be able to slice and dice loss history and correlate key economic indicators to your own losses.”

It is also important, he said, to think through in advance of adoption the required internal controls for financial reporting, all the related controls to make appropriate adjustments and wind up with an appropriate model.

“With new data in the mix, new parties involved, like people in the credit department, a new model – that all lends itself to errors. So what are your review processes, how will you assure the integrity of your data, how good is the external data you are feeding into the model, and what are the controls to make sure you are using the right data?”

Auditors want to see:

- Right people**
 - Proper training
 - Understanding of requirements
- Data**
- Correlate key economic indicators**

Key Economic Indicators



“The beta test of your new methodology should occur well before implementation, about a year before. This allows for plenty of time for tweaking to test various methodology changes.”

*Walter McNairy
Managing Partner
DHG Financial Services*

The auditor’s role, McNairy pointed out, is to review, not create.

“We like to check in from time to time to glimpse what the final product is going to look like, make sure the bank is on the right track. Then we’ll step in at the pro forma stage. We’ll look at the model and compare it to what the bank has in place.”

That “beta test,” McNairy noted, should occur well before implementation, about a year before, “so there is plenty of time for tweaking, to test various methodology changes.

“When it’s done, we’re going to dive in for an in-depth look at the level of reserve, the

methodologies and assumptions. We don’t want any surprises; you don’t want to surprise your regulators.”

Robin Sawyer, a partner at DHG, confirmed. “They are going to be concerned about governance, about the process and such things as board oversight. Does management have the right resources internally to calculate the allowance under CECL?

“They will want to know that you have addressed all the elements in FASB’s and their guidances.”

7 How long will it take for audit and regulatory approval?

4 Quarters
Suggested time: 2-4 Quarters



A Tool You Can Use

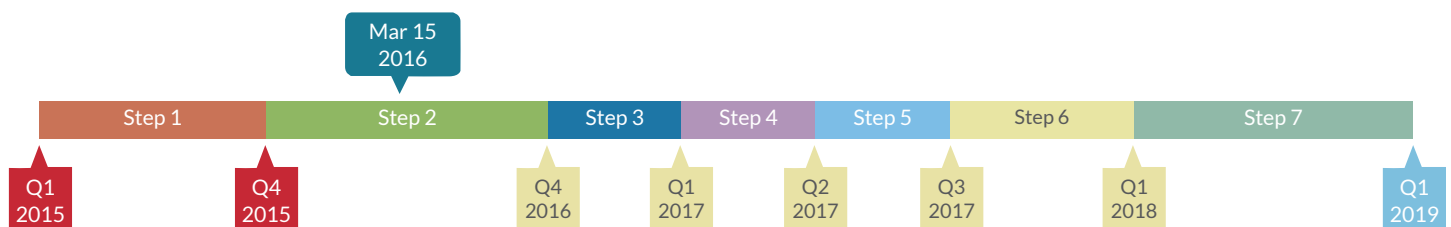
The Seven Steps reflect the seven issues that are essential to address as you prepare for CECL. The Seven-Step process and the related timeline calculator are tools to plan and execute your way through those issues, providing an appropriate amount of time to address each, and track your progress as you move toward a CECL-compliant model.

We invite you to create your own timeline for your bank or credit union similar to this one and even print to pdf or email the full report to yourself.

Visit
<http://info.mainstreet-tech.com/cecl-timeline-calculator>
to use the CECL Transition Calculator.

CECL Transition Timeline

Are you on track?
4 Quarters Behind





Since 2005, MST has implemented technology solutions to help financial institutions simultaneously simplify and sophisticate the way they manage the inherent risk in their loan portfolios. MST is the leader and pioneer in ALLL software solutions and education for financial institutions across the U.S., and is committed to its leadership role in developing and refining products that address ALLL compliance requirements

as they evolve, including under the new CECL accounting standard. MST solutions are bank-tailored, integrate with core and other data systems, deliver greater control to policy, and exponentially improve efficiencies - all of which positively impact profitability.

Contact MST:
877-910-9789
info@mainstreet-tech.com

**The information contained in this and other MST white papers is intended to provide insight and support the financial institution's efforts to make appropriate ALLL determinations. However, it does not constitute regulatory policy, nor is intended to replace the exercise of appropriate judgement and analysis of actual circumstances by bank management.

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