5-2018

A Study of the Potential Implementation Obstacles of the Expected Loss Model in East Tennessee

Baylee Mann

A Study of the Potential Implementation Obstacles of the Expected Loss Model in East Tennessee

Baylee A. Mann

A thesis submitted to fulfill partial requirements set forth by the University Honors Scholars Program at East Tennessee State University.

X

Baylee Mann

X

Mr. Joel Faidley, Thesis Mentor

X

Dr. Bill Heise, Reader

X

Dr. Lana Becker, Reader

ACKNOWLEDGEMENTS

Thank you to all of the accounting professors at East Tennessee State University that have encouraged and inspired me to pursue a degree in Accounting. Special thanks to my thesis mentor, Mr. Joel Faidley, who has always believed in me and encouraged me throughout not only my thesis, but also throughout my entire undergraduate career here at ETSU. In addition, thank you Dr. Bill Heise and Dr. Lana Becker for serving as my thesis readers.

I would also like to express my gratitude to those associated with the University Honors Scholars Program for inspiring me to broaden my horizons and affording me the honor of graduating from this program. Most importantly, I would like to thank my parents, my siblings, and specifically my husband, Avery, for your unwavering love and support throughout this thesis and my entire undergraduate degree. I would not be the person I am today without your care and encouragement. Lastly, thank you to my Lord and Savior Jesus Christ for being the rock on which I stand.

ABSTRACT

The Financial Accounting Standards Board (FASB) has recently introduced a new Accounting Standards Update (ASU) that will require financial institutions to measure their loan losses using a new Expected Loss Model (ELM) that emphasizes forward looking financial decisions. Numerous financial journals hypothesize that large financial institutions will face difficulties when implementing the new ASU. This research explores the potential implementation issues that small, local financial institutions, specifically Eastman Credit Union (ECU), will encounter as they begin the implementation process.

TABLE OF CONTENTS

LITERATURE REVIEW

Introduction

The most recent financial crisis of 2008 has brought great attention to a variety of issues within the Accounting and Finance industries. One of the most controversial issues is whether financial institutions should operate on an Incurred Loss Model (ILM) or Expected Loss Model (ELM) when measuring financial losses. The implementation of a particular model is significant because the chosen model affects the company's financial statements and the perceived fitness of their company. These two models are most often used in the analysis of loan losses, which has proved to be significant because loans now make up 60% to 70% of banks' assets (O'Hanlon, Hashim, & Li, 2016). If a particular model does not result in an efficient accounting for losses, then the company can overstate their financial statements or have an insufficient allowance for bad debt expense. In turn, the result for the company may be too little, too late when accounting for credit losses (Edwards, 2014). In light of these issues, governing bodies such as the Financial Accounting Standards Board (FASB) that promulgates generally accepted accounting principles (GAAP) and the International Accounting Standards Board (IASB) through International Financial Reporting Standards (IFRS) have sought to correct such problems by recently introducing an improved model for analyzing losses. The ELM seeks to fix many problems presented by the ILM, but the ELM has its unique potential implementation issues.

Accounting Background

This paper will reference financial statements as they are a vital tool in the accounting process. Simply, there are three major financial statements: the balance sheet, the income statement, and the statement of retained earnings. The balance sheet represents a snapshot in time that displays a company's assets, liabilities, and equity while an income statement represents a company's revenues and expenses over a period of time (Averkamp, n.d.). Next, in order to understand the significance of financial models that account for loss, one must understand how to account for losses. A loss has officially occurred when, "the carrying amount of the credit exceeds the present value of future cash-flows" (Helmut & Podda, 2015). Thus, the debtor has ceased to repay due debts to creditors. The losses are expensed through a reduction of earnings on the income statement and presented as a loss on the balance sheet due to a devaluation of assets. So, obviously, accounted losses significantly affect these financial statements. Financial statements are so important to the business community because they reflect the fitness of a company. In turn, investors or borrowers base many of their decisions on what is found on these statements. Since these two different models for loss affect what is conveyed through these financial statements, it is imperative to anyone who may one day be an investor or borrower to know the difference between these two models. One of the major ways that these two models differ is in the way in which they account for these losses.

The Incurred Loss Model

Under both previous standards for FASB and IASB, the accounting model for recognizing credit losses was the ILM. The ILM measured credit losses based on events that had

occurred as of the balance sheet date. Thus, companies could not anticipate or prepare for any losses that were evidently forthcoming based on certain environmental or economic conditions. In fact, these standards explicitly prohibited any provisioning of losses until observable evidence could be recorded that supported the loss, such as loss of employment from the borrower (Edwards, 2014). The ILM was in turn criticized by organizations such as the Financial Crisis Advisory Group for overstating the value of assets and delaying the identification of loan losses during the 2008 financial crisis (Wall, 2013). The standards also prohibited banks from properly provisioning credit losses prior to the looming financial crisis (Edwards, 2014). As a result, many people within the business world began to wonder if this specific model contributed to procyclicality within the economy. Specifically, "'Procyclicality' refers to the dynamic interactions between the financial and the real sectors of the economy" (Edwards, 2014, p. 14). The consequences of inefficient provisioning of loans by major financial institutions trickled down into the everyday economy and caused major disturbances. This led to the notion that major improvements were needed in standards that regulated the provisioning for loan losses.

The Expected Loss Model

As a result of these problems, a working group of banking supervisors, accounting standard-setters, and audit regulators were brought together to investigate the ILM. In April 2009, the committee found that, "Earlier recognition of loan losses could have damped cyclical moves in the current financial crisis… Earlier identification of credit losses is consistent both with financial statement users' needs for transparency regarding changes in credit trends and with prudential objectives of safety and soundness" (Edwards, 2014, p. 14). Therefore, FASB

created a project to explore more forward-looking alternatives to the ILM. In the process of developing this new Accounting Standards Update (ASU), FASB sought to gain insight across the financial industry. The outreach that was considered for this ASU included: 25 fieldwork meetings with preparers from various industries, meetings with over 200 financial statement users, 3,360 comment letters concerning the various drafts, and numerous roundtables with industry professionals including auditors, regulators, preparers, and users. On June 16, 2016, FASB issued ASU No. 2016-13, Financial Instruments-Credit Losses (Topic 326) (FASB, 2016). The IASB also had similar deliberations and issued its first exposure draft for the new model on November 5, 2009. The new model is now included in a revised accounting standard set to be adopted by the IASB by 2018 (European Financial Reporting Advisory Group, Federation of European Accountants, 2009).

Four Essential Steps to CECL Implementation

The ELM (ASU No. 2016-13) is commonly referred to in the financial communities as Current Expected Credit Loss (CECL). Thus, when CECL is referenced in this text, it is equivalent to referencing the ELM. Financial software vendors and regulatory groups have provided direction to these various financial institutions in preparation for implementing the new guidelines. Overall, these memorandums communicate four essential steps to implementing CECL within a specific institution. The first step to properly implementing CECL is for financial institutions to segment their loan portfolio properly. Institutions segment their loan portfolio by separating loans into different groups in order to apply their loan loss provisions accurately. The second step is to select a credit quality indicator for each segment. A credit quality indicator is a

rating such as a “credit score, loan-to-value, the probability of default, or internal risk rating” (Visible Equity, 2016). Next, a bank or financial institution must choose an expected loss rate method for each segment. This step that will be examined later in this study. The final step in implementing CECL is simply putting the previous steps together by multiplying the different segments by their respective expected loss rate (Visible Equity, 2016).

There are three main methodologies that are considered acceptable for calculating the expected loss rate. These methods include the probability of default method, the loss rate method, and the discounted cash flow method. The probability of default method is calculated by first determining a probability of default for each loan. The probability of default is the determined probability that a borrower will fail to repay their loan. The probability of default method then uses this probability of default ratio and multiplies it by the loss given default, which is calculated by subtracting the outstanding balance from the net proceeds of the sale and then dividing that number by the outstanding balance. The second method, the loss rate method, is calculated using a charged off ratio, which is simply the charged-off balances divided by an average balance. This charged-off ratio is usually complicated by the need to additionally use credit quality indicators, static pools, and loss migration techniques. Finally, the discounted cash flow method is the most complex method. Discounted cash flow analysis requires the use of an expected cash flow value and a discount rate that is used to adjust the cash flow for estimated risk. The discounted cash flow method is exacerbated by the requirement for the effective interest rate to be used as the discount rate. The downside to this requirement is that one ends up back at the investment rate balance after using the effective interest rate as the discount rate (Visible Equity, 2016).

The main purpose of this new approach is to ascertain that assets are not represented at a higher amount than their recoverable amount on financial statements. In turn, the ELM is much more subjective than the ILM because it relies heavily on cash flow estimates prepared by a specific institution (European Financial Reporting Advisory Group, Federation of European Accountants, 2009). The new model will no longer require credit events to occur before a credit loss is recognized. Instead, expected credit losses or events that may trigger these losses will be recognized each reporting period in order to accurately reflect credit quality. Under the new proposal, banks and other financial institutions will be required to report credit losses in three separate stages. The first stage reports expected credit losses within the year while stages two and three report full lifetime expected credit losses (Edwards, 2014). Although this new model definitely has advantages in comparison to the incurred loss model, some analysts have theorized disadvantages are likely to occur within major financial institutions and banks.

The new ELM relies heavily on forecasted events and previous historical data to predict when these future losses will occur. As a result, an immense amount of data must be collected through additional systems that are not currently available at all major international and U.S. banks (Edwards, 2014). For example, financial institutions must now have historical loss data for all financial assets that are recorded at amortized cost in addition to impaired financial assets. Not only do many financial institutions lack this historical data, but such data is also not easily obtainable for the future in many financial markets (European Financial Reporting Advisory Group, Federation of European Accountants, 2009). Banks must also rely heavily on the interpretations of financial forecasts in order to account for expected loan losses. This could substantially increase the number of management judgements needed for these types of complex

decisions (Edwards, 2014). In conclusion, the major potential difficulties of the ELM are the lack of historical data, additional information technology systems to retrieve and process this data, and extensive management decisions.

RESEARCH CONDITIONS

Destabilizing Condition, Research Question, and Hypothesis

Many analysts have highlighted the previously mentioned potential problems that may arise as the Expected Loss Model (ELM) is implemented across large national and international financial institutions. There is scarce literature though on the impact that this new model will have on local, small financial institutions such as credit unions, specifically those in East Tennessee. The primary question in this study concerns whether smaller institutions will encounter the same implementation issues and to what degree of difficulty. If there are such major complications that may arise in larger institutions, one would assume that smaller banks and credit unions will have similar, if not worse, difficulties in migrating to a new model. Specifically, it can be expected that these smaller credit unions and banks will have even less access to the information technology systems that are needed to account for expected losses. In addition, these smaller financial institutions will likely not have as much access to the copious amounts of historical data that is required to compute for losses

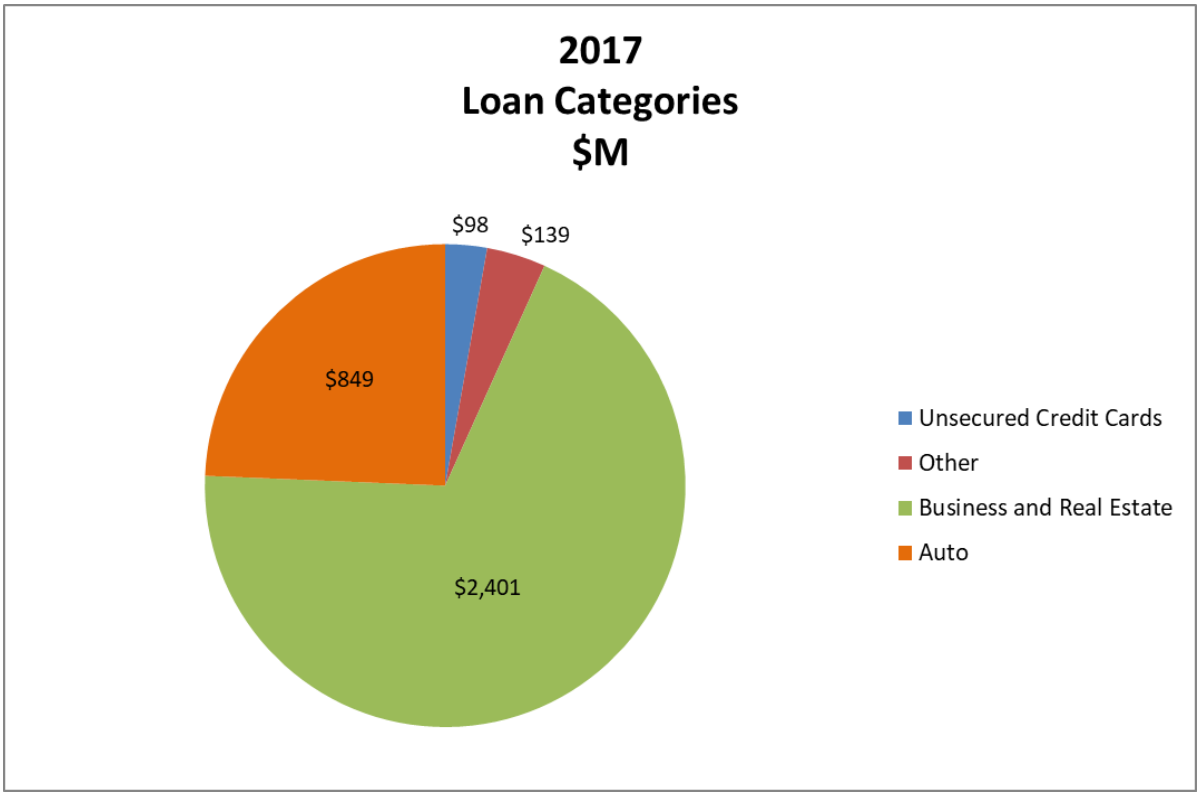
Research Methods

Because the new standards are rather recent, the literature supporting this study only include documents that have been published since 2008. The study will be limited to the East Tennessee region and to a bank or credit union that is part of a local network but without ties to a national branch system. This allows appropriate analyses of a financial institution that is smaller

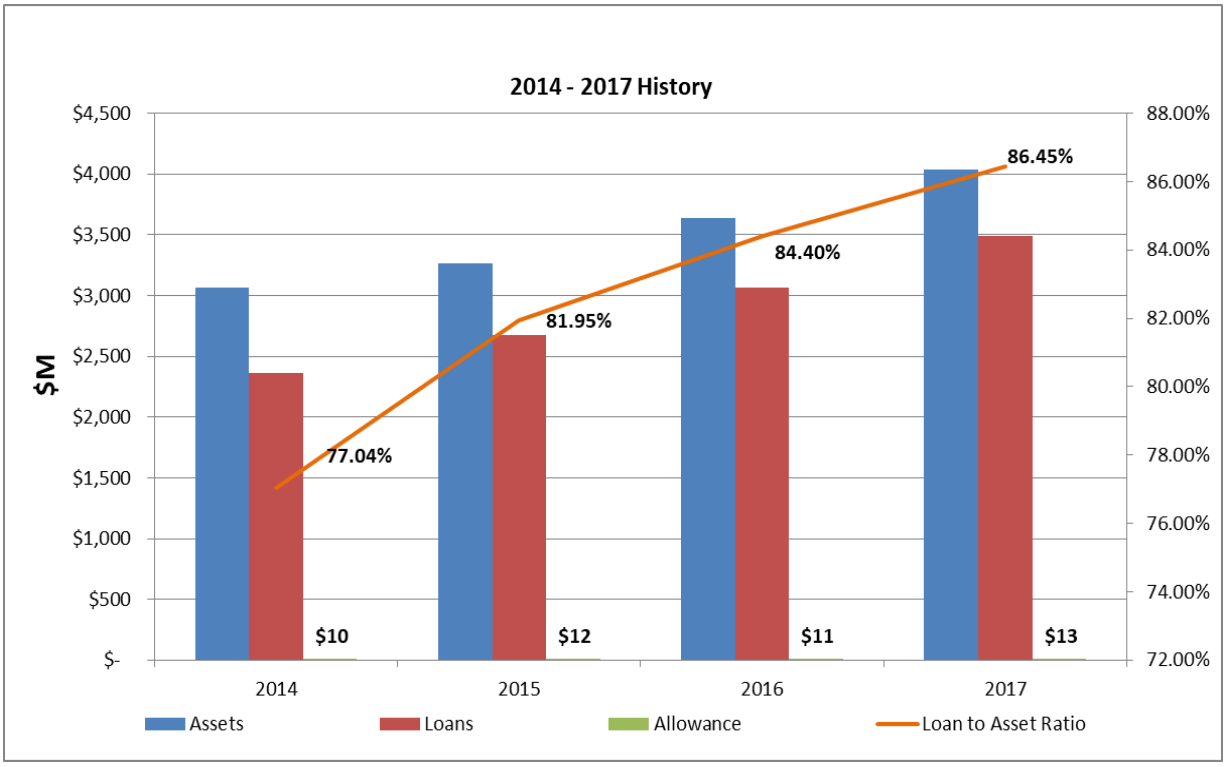
in size and affects the East Tennessee region. The institution selected is Eastman Credit Union (ECU), which falls within the scope of the predetermined choice of locality. The individuals selected to interview were accountants, the controller, and any other financial positions within the credit union that have direct knowledge and access to the models used to account for losses. A pre-approved list of questions was developed (see Appendix A) to determine any challenges and difficulties that ECU has encountered while in the process of implementing the new ECL method. At the end of this study, the difficulties that ECU has faced so far related to the implementation of the ELM should be ascertained. The potential issues considered include: the need for more historical data, the need for additional information technology systems to retrieve and process this data, and extensive management decisions that will accompany the implementation of the ELM.

History of Eastman Credit Union Meeting

On December 13, 2017, extensive meetings were held with the Controller and other financial representatives at Eastman Credit Union (ECU) on 2021 Meadowview Lane, Kingsport, Tennessee. These individuals included: Robin Wilkerson, Controller; Scott Davis, Treasurer; Stacy DeBord, Financial Analyst; and Kathy Rhoton, Investment Analyst. During these meetings, the ECU representatives explained the history of ECU and the extensiveness of their loan portfolio. ECU was chartered by the state of Tennessee in 1934 and served the employees and families of Tennessee Eastman Chemical Company, now Eastman Chemical Company, exclusively. In 2001 ECU was spun off from Eastman Chemical Company and provided service to other partner companies. In 2005 ECU was granted a community charter to better serve the communities within their footprint (K. Rhoton, personal communication, December 13, 2017). The balance sheet of ECU contained consumer, mortgage, and business loans. The chart below represents ECU's loan category balances as of December 31, 2017.



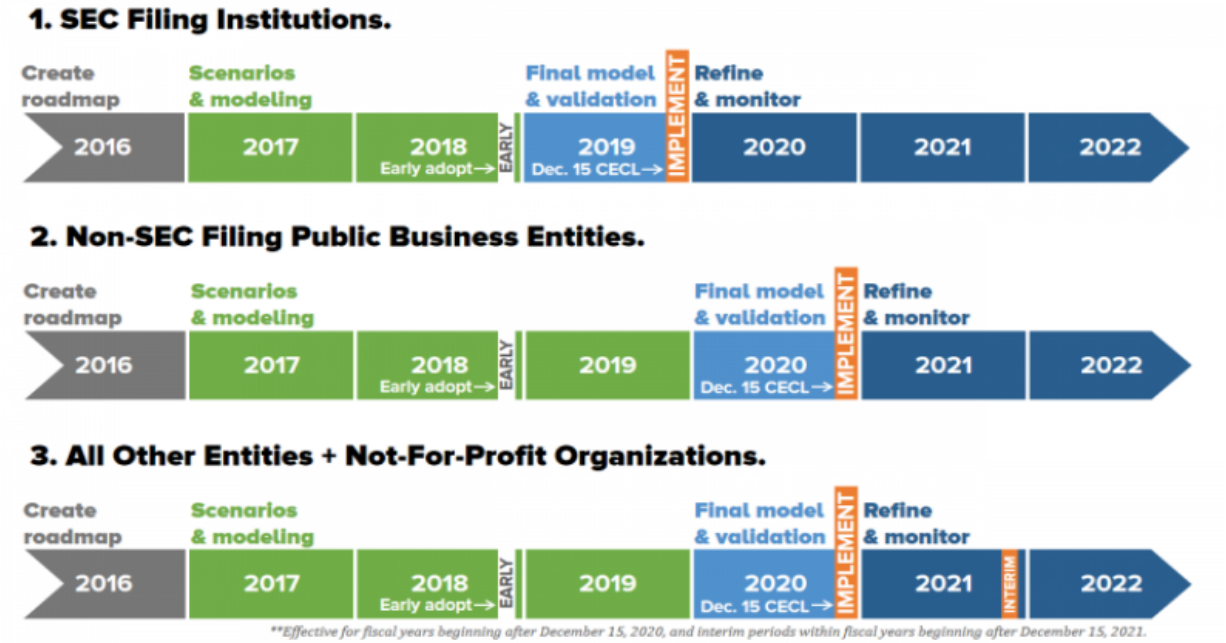
Initially, it is important to identify the significance of ECU's loan portfolio because it is vitally important to the success of their business overall. For the quarter ended December 31, 2017, ECU's loan-to-asset ratio was approximately 86 percent and allowance-to-loan ratio was .37 percent. The chart below represents a four-year history of ECU's loan and allowance activity. (National Credit Union Administration, 2017).



Accordingly, the representatives from ECU stated that the new policies regarding accounting for loan losses are currently one of the top priorities of the Accounting department.

Creation of Team and Implementation Timeline

ECU's controller, Robin Wilkerson, began the meeting by giving a brief overview of the implementation timeline and the creation of their own Current Expected Credit Loss (CECL) team. The timeline for implementing CECL varies based on whether an institution falls under a SEC-Filing Institution, Non-SEC Filing Public Business Entities, or All Other Entities & Not-for-Profit Organizations. The chart below shows timelines for the various types of organizations that are required to implement CECL (SageWorks, 2017).



ECU is categorized as a Not-for-Profit Organization so they are currently still in the scenarios and modeling stage of the implementation. Robin Wilkerson kicked off a CECL Implementation Team in July of 2016, in which she served as the team leader. The team included members from various departments including Accounting, Risk Management, Internal Audit, Asset Recovery, and Business Lending. A high-level understanding of the project plan includes: understanding the project scope, educating team members, and following the timeline. During the first meeting, Robin Wilkerson presented the team members with resources to better understand CECL and how it would impact their company. Currently, the team is still in the process of vetting software vendors (R. Wilkerson, personal communication, December 13, 2017).

Historical Data Requirements

As mentioned earlier, the Expected Loss Model (ELM) requires a copious amount of historical data to forecast into the future. This data includes loan characteristics such as internal or external credit scores or credit ratings, risk ratings or classifications, financial asset type, collateral type, asset size, effective interest rate, term, geographical location, and industry of the borrower (Board of Governors of the Federal Reserve System, 2016). Many institutions, especially smaller local firms, were expected to face difficulties when it came to the collection of this data. The issue is not whether the data is available, but that they may not have multiple years of granular data (SageWorks, 2017). Fortunately, ECU believes they will not have these issues with data collection. In 2014, ECU was encouraged to consider implementing a loan analytics package by their examiners in order to have more centralized reporting. Visible Equity Loan Portfolio Software was chosen for the loan analytics solution. In order to implement this loan analytics software in 2014, ECU had to consolidate all of their data into one database and load it into this software. As a result, the majority of the data needed for the implementation of CECL was collected while implementing the loan analytic software and is maintained monthly (R. Wilkerson, personal communication, December 13, 2017).

Potential Software Vendors

After addressing the data needs for this new Accounting Standards Update (ASU), ECU began to assess potential software vendors for the implementation of CECL. In order to make the loan allowance calculations needed for the implementation of CECL, software capable of housing this data and performing these complex loan calculations is essential. ECU was

informed by their external auditors and examiners that there is not a pre-approved list of vendors that offer this particular software. In addition, their examiners and external auditors were not authorized to recommend any certain vendor. Fortunately, the vendor that they currently use for loan analytics, Visible Equity, is also developing software that will perform the functions needed for CECL. In order to consider other vendors, they made a list of potential candidates and sent out a request for information that included questions that addressed some of their most important areas of concern. ECU decided to only consider software that was capable of performing both loan analytics and CECL calculations. ECU preferred to use the same tool for both because it is more efficient facilitating the process of preparing and entering data into a single software program. Accordingly, it streamlines their process and allows for more consistent data (R. Wilkerson, personal communication, December 13, 2017).

They also considered the software's ease of use and need for training, development of the various methodologies, and the program's ability to calculate ECU's current methodology. Obviously, when it comes to implementing completely new software, it is necessary to provide training to all relevant employees. Training is often a timely expense for companies. Since ECU is already utilizing Visible Equity for their loan analytics program, choosing the same software vendor for CECL would reduce the need for extensive training. Currently, the software vendors continue to work on the development of the three different methodologies for calculating the expected loss. ECU decided to delay choosing a software vendor until they are completely finished with developing the individual methodologies. The original target date for this development by Visible Equity was December 31, 2017 but it has been postponed until the end of the first quarter for 2018. Finally, it is important to ECU that the software be capable of

performing their current methodology while they are transitioning into the new methodology. The benefit of this requirement is the time savings prior to the implementation of CECL and it serves as a check step for the new model. The time savings will come from the model supplying incurred loss instead of ECU having to manually calculate the loss. Moreover, the software's capability of utilizing the previous methodology in addition to the new is that accountants can look at the data being used for the calculation of the new model compared to the old to ensure that the model is pulling the data correctly. The calculated loss between the two models will most likely be different, but the balances within the data should still be the same (R. Wilkerson, personal communication, December 13, 2017).

Extensive Management Decisions

There are a variety of management decisions that must be made in regard to the implementation of CECL. Firstly, the copious amount of historical data that must be entered into the software to calculate the expected loss is not entered directly into the software by ECU personnel. Instead, the data is prepared and then provided to the software vendor. However, ECU must make extensive decisions regarding their loan segments, classes of loans, basis for these loans, certain methodologies, and include qualitative factors and forecasting. Currently, ECU has not had to spend extensive amounts of time or hire any additional employees to deal with this decision making. The controller, Robin Wilkerson, stated that she has devoted a few hours a month to their CECL process thus far. The time expenditure does add up when you consider the effort expended by the entire CECL implementation team. As ECU continues to track closer to the implementation deadline for Not-For-Profit Companies (2021), Wilkerson estimates that

their time spent dedicated to CECL will increase. In addition to time requirements, one of the management decisions that must be made as a result of CECL is the need to decide on the methodology to use for loss calculation. As mentioned previously, these various methodologies are extensively complex, but ECU was able to provide some information about the methodology preference. The vintage loss methodology (a type of discounted cash flow) requires an extensive amount of historical data because the methodology looks back at the entire life of the loan to make the calculation. Because of this, ECU finds the vintage loss methodology one of the least preferable. In contrast, their current data is more conducive to the probability of default method (R. Wilkerson, personal communication, December 13, 2017).

CONCLUSION

Summary of Research and Examination of Hypothesis

The financial crisis of 2008 brought great light to many issues that needed to be further analyzed within the financial community. Improving the model that accounts for losses is just one of the many ways that may improve our current system. After implementation, the Expected Loss Model (ELM) will hopefully prevent banks from overstating their assets and make financial statements more transparent to investors and borrowers. Unfortunately, there are a number of implementation issues that are expected to arise when the new method becomes effective. An assessment of the level of difficulty confronting a local financial institution in East Tennessee, Eastman Credit Union (ECU), implementing this new Accounting Standards Update (ASU) has been performed. This study has primarily concentrated on the availability of historical financial data, potential software vendors, and the need for extensive management decisions that resulted from implementing this new update. Considering the hypotheses, I believe that ECU has far surpassed the expectations for the preparedness of smaller, local financial institutions. It has encountered few issues related to the accumulation of the copious amount of required historical data. ECU is currently in the process of vetting software vendors that will enable them to have access to the information technology programs that will process this data. In addition, it appears that the Controller of ECU and the Current Expected Credit Loss (CECL) team are in the process of making sound, informed management decisions as their institution moves closer to the implementation date.

Recommendations for Further Research

Until a financial institution adopts the new accounting standard, they are not permitted to begin to increase their allowance for loan loss amount even though it may be estimated that it will increase under the new standard. It has been deemed inappropriate, "to treat CECL as a basis for qualitatively adjusting allowances measured under the existing incurred loss methodology" (Board of Governors of the Federal Reserve System, 2016, p. 16). As a result, it is likely that these institutions will have to take one big hit when their allowance levels increase, resulting in a reduction of their retained earnings and thus a reduction in their net worth. Additional research may be conducted exploring the true financial impact to a financial institution's net worth. Smaller financial institutions may be impacted more severely by this increase in loan allowance because their retained earnings are not as substantial as larger institutions.

APPENDIX A

Eastman Credit Union Interview Material

Names of Interviewees: Robin Wilkerson, Controller, Scott Davis, Treasurer, Stacy DeBord, Financial Analyst, and Kathy Rhoton, Investment Analyst

Location: Eastman Credit Union, 2021 Meadowview Lane, Kingsport TN

Date: December 15, 2017

Interview Questions

What has your role been when it comes to the implementation of the expected loss model?

What is the timeline for ECU as far as the implementation of the expected loss model?

What are some of the specific challenges that you are facing when it comes to implementation of the new model?

Has ECU seen any of the benefits related to the new model yet?

What benefits do you anticipate as a result of the new model?

BIBLIOGRAPHY

Averkamp, H. (n.d.). *Financial Accounting*. Retrieved on March 14, 2016 from https://www.accountingcoach.com/financial-accounting/explanation

Board of Governors of the Federal Reserve System. (2016). *Frequently Asked Questions on the New Accounting Standard on Financial Instruments-Credit Losses*.

Board of Governors of the Federal Reserve System. (2016). *Joint Statement on the New Accounting Standard on Financial Instruments-Credit Losses.*

Eastman Credit Union. (2016). *CECL High-Level Preparation Review*.

Edwards, G. (2014). The Upcoming New Era of Expected Loss Provisioning. *SEACEN Financial Stability Journal, Volume 2, 13-24*. Retrieved on March 14, 2016 from https://www.seacen.org/products/702003-100340-PDF.pdf

European Financial Reporting Advisory Group, Federation of European Accountants. (2009). *Impairment of Financial Assets: The Expected Loss Model*. Retrieved on March 14, 2016 from https://www.iasplus.com/en/binary/efrag/0912expectedlosspr.pdf

Financial Accounting Standards Board. (2016). FASB in Focus. *Accounting Standards Update No. 2016-13, Financial Instruments-Credit Losses (Topic 326).*

Helmut, S. & Podda, P. (2015). *Incurred Losses vs. Expected Losses: A Critical Comparison*. Retrieved on March 14, 2016 from https://www.linkedin.com/pulse/ifrs-conference-aau-incurred-losses-vs-expected-pietro-andrea-podda

O'Hanlon, J., Hashim, N., & Li, W. (2015). *Expected-Loss-Based Accounting for the Impairment of Financial Instruments: the FASB and IASB IFRS 9 Approaches*. Retrieved on March 14, 2016 from http://www.europarl.europa.eu/cmsdata/93530/IPOL_STU(2015)563463_EN.pdf

National Credit Union Administration. (2014). *National Credit Union Administration Fourth Quarter Call Report*. Retrieved on March 24, 2018 from file:///C:/Users/kram9/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8bbwe/TempState/Downloads/CallReport5300_December-2014_EASTMAN.pdf

National Credit Union Administration. (2015). *National Credit Union Administration Fourth Quarter Call Report*. Retrieved on March 24, 2018 from file:///C:/Users/kram9/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8bbwe/TempState/Downloads/CallReport5300_December-2015_EASTMAN.pdf

National Credit Union Administration. (2016). *National Credit Union Administration Fourth Quarter Call Report*. Retrieved on March 24, 2018 from file:///C:/Users/kram9/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8bbwe/TempState/Downloads/CallReport5300_December-2016_EASTMAN.pdf

National Credit Union Administration. (2017). *National Credit Union Administration Fourth Quarter Call Report*. Retrieved on March 24, 2018 from file:///C:/Users/kram9/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8bbwe/TempState/Downloads/CallReport5300_December-2017_EASTMAN.pdf

SageWorks. (2017). *CECL Prep: Implementation*.

Visible Equity. (2016). *A Practical Guide to the Allowance for Expected Credit Loss*.

Wall, L. (2013). *FASB Proposes too Early Loan Loss Recognition*. Retrieved on March 14, 2016 from https://www.frbatlanta.org/cenfis/publications/notesfromthevault/1308.cfm