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2023 Adopter CECL Implementation Road Map Series: Q-Factors in a CECL World

Gordon Dobner & Susanne Muenow / December 8, 2022

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Meet the Presenters



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Agenda

- Understand the requirements of Topic 326/Interagency Guidance for adjustments to historical loss experience for differences in current conditions & future forecasts
- Discuss why reconsideration & modification of incurred loss qualitative factors considered & their corresponding adjustments is necessary under CECL
- Discuss how some institutions are addressing current condition & future forecast adjustments qualitatively & quantitatively

Requirements of Topic 326/Interagency Guidance

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Sources of Guidance

- ASU 2016-13 (Financial Instruments—Credit Losses (Topic 326))
- FASB Staff Q&A – Topic 326, No. 2: Developing an Estimate of Expected Credit Losses on Financial Assets
- Interagency Policy Statement on Allowance for Credit Losses (issued May 2020) – *Applies to depository institutions*
 - Replace existing guidance once a depository institution adopts Topic 326

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Adjusting for Current Conditions & Future Forecasts

Developing an Estimate of Expected Credit Losses – Topic 326

- Estimate can not be based on historical experience alone
- Adjust historical loss information for current conditions & reasonable & supportable future forecasts
 - ✓ Adjustments should reflect the extent management expects current conditions & reasonable & supportable forecasts to differ from the conditions that existed during the historical loss period
 - ✓ Adjustments may be qualitative &/or quantitative in nature
 - ✓ Standard provides example factors to consider

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Adjusting for Current Conditions & Future Forecasts

Example factors per ASC 326-20-55-4

- Borrower's financial condition, credit rating, credit score, asset quality, or business prospects
- Borrower's ability to make scheduled interest payment terms of the financial assets
- Remaining payment terms of the financial asset
- Remaining term to maturity & the timing & extent of payments
- Nature & volume of the entity's financial assets
- The volume & severity of past dues & the volume & severity of adversely classified or rated financial asset(s)
- The value of underlying collateral on financial assets in which the collateral-dependent practical expedient has not been utilized
- The entity's lending policies & procedures, including changes in lending strategies, underwriting standards, collection, write-off, & recovery practices, as well as knowledge of the borrower's operations or the borrower's standing in the community
- The quality of the entity's credit review system
- The experience, ability, & depth of the entity's management, lending staff, & other relevant staff
- The environmental factors of a borrower & the areas in which the entity's credit is concentrated

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FASB Staff Q&A – Topic 326, No. 2: Developing an Estimate of Expected Credit Losses on Financial Assets

Question 1: Does the application of the word *forecast* in paragraph 326-20-30-7 infer computer-based modeling analysis is required?

Response: No, developing forecasts does not require an entity to perform computer-based modeling. Topic 326 allows a **quantitative or a qualitative adjustment** to be made when assessing current conditions & reasonable & supportable forecasts. One way to apply a forecast on a qualitative basis is by using qualitative factors (Q-factors). Similar to how many entities consider Q-factors under existing practice in determining the allowance for credit losses, another approach can be used for forecasting

Question 3: Can an entity's process for determining expected credit losses consider *only* historical information?

Response: No. The guidance states that an entity should not rely solely on past events to estimate expected credit losses. When an entity uses historical loss information to forecast expected credit losses, it should consider the need to adjust historical loss information to reflect the extent to which management expects current conditions & reasonable & supportable forecasts to differ from the conditions that existed for the period over which historical loss information was evaluated. **The adjustments, if needed, to historical loss information may be qualitative or quantitative in nature & should reflect changes related to relevant data**

In addition, an entity should consider adjustments to historical loss information for differences in current asset-specific risk characteristics, such as **underwriting standards, portfolio mix, or asset term within a pool at the reporting date**. An entity also should consider whether historical loss information used covers a sufficient time period such that it reflects the term of the financial asset or group of financial assets

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Interagency Policy Statement on ACL – Qualitative Factor Adjustments

- May **increase or decrease** management's estimate
- Should **not** be made for information already considered & included in the model
- Changes in overall level of ACL **may not** always be directionally consistent with changes in qualitative factor adjustments due to incorporation of reasonable & supportable forecasts

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Interagency Policy Statement on Allowance for Credit Losses (cont.)

- The nature & volume of institution's financial assets
- The existence, growth, & effect of any concentrations of credit
- The volume & severity of past due financial assets, the volume of nonaccrual assets, & the volume & severity of adversely classified or graded assets
- The value of the underlying collateral for loans that are not collateral-dependent
- The institution's lending policies & procedures, including changes in underwriting standards & practices for collections, write-offs, & recoveries
- The quality of the institution's credit review function
- The experience, ability, & depth of the institution's lending, investment, collection, & other relevant management & staff
- The effect of other external factors such as the regulatory, legal, & technological environments; competition; & events such as natural disasters
- Actual & expected changes in international, national, regional, & local economic & business conditions & developments in which the institution operates that affect the collectability of financial assets

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Qualitative Factors Specific to Held-to-Maturity Debt Securities (NEW FOR CECL)

- The effect of recent changes in investment strategies & policies
- The existence & effect of loss allocation methods, the definition of default, the impact of performance & market value triggers, & credit & liquidity enhancements associated with debt securities
- The effect of structural subordination & collateral deterioration on tranche performance of debt securities
- The quality of underwriting for any collateral backing debt securities
- The effect of legal covenants associated with debt securities

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Re-evaluating Q-Factor Adjustments Under CECL

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Q-Factor Adjustments in a CECL World

- Although factors considered are similar in CECL, adjustments necessary will vary from incurred loss as institutions implement new methods & assumptions under CECL, including
 - Model/methodology selections
 - Historical loss periods assumption
 - Quantitatively versus qualitatively adjusting for difference in current conditions & R&S forecasts for items such as
 - + Economic conditions
 - + Portfolio characteristics (risk grades, past dues, FICO scores, etc.)

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How Selection of Historical Loss Periods Can Impact Q-Factors

- One of the most common reasons for heavy reliance on qualitative factor adjustments, in incurred & CECL allowances, is historical periods with little to no loss experience
- In CECL we have seen many institutions use longer-term or through-the-cycle loss experience & peer data
 - This is a major shift from incurred which was typically a 3- to 5-year lookback
 - In the current environment this tends to create more quantitative reserves
- Let's walk through an example of this using the WARM method

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WARM – As Presented by Regulators & FASB

- The remaining life method uses average annual charge-off rates & remaining life to estimate the allowance for credit losses (ACL)
- For amortizing assets, the remaining contractual life is adjusted by the expected scheduled payments & prepayments, *i.e.*, paydowns
- The average annual charge-off rate is applied to the amortization adjusted remaining life to determine the unadjusted lifetime historical charge-off rate



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FASB Q&A Example Fact Pattern

- Estimate the allowance for credit losses as of 12/31/2020
- Pool of financial assets of similar risk characteristics
 - Amortized cost basis of ~\$13.98 million
 - 5-year financial assets (contractual term adjusted by prepayments)
- Management expects the following in 2021 and 2022:
 - Rise in unemployment rates
- Management cannot reasonably forecast beyond 2022
- Assume 0.25% qualitative adjustment to represent both current conditions and reasonable and supportable forecasts

Based on amortized cost

Estimated life which includes expectation of prepayments

Forecast period

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WARM – Table 1 (Historical Loss)

Table 1: Calculate Average Annual Charge-off Rate				
		A	B	C = B/A
Year	Amortized Cost	Average Balance	Actual Annual Net Charge-offs	Annual Charge-off Rate
2015	\$ 5,126			
2016	8,969	7,048	21	0.30%
2017	11,220	10,094	51	0.51%
2018	12,312	11,766	42	0.36%
2019	12,936	12,624	32	0.25%
2020	13,980	13,458	49	0.37%
Balances are in thousands except charge-off rate data				
Average annual charge-off rate				0.36%

Note: Look-back period for historical loss experience 2015 to 2020

Considers recoveries

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WARM – Table 2

Table 2: Estimated Amortized Cost Basis				
		A	B	A*B
Year End	Est. Paydown	Projected Amort Cost	Avg Annual Charge-off Rate	Allowance for Credit Losses
2020 Actual Amortized Cost	\$	13,980	0.36%	\$ 50
2021	\$ 3,700	10,280	0.36%	37
2022	3,900	6,380	0.36%	23
2023	3,000	3,380	0.36%	12
2024	2,160	1,220	0.36%	4
2025	1,220	-	0.36%	-
Est. unadjusted charge-off amount for remaining balance				126
<i>Paydown & amortized cost balances in thousands</i>				
Unadjusted historical charge-off rate for remaining balance				0.90%
Qualitative Adjustment				0.25%
Total allowance for credit losses rate as of 2020				1.15%
Total allowance of credit losses as of 2020 (\$13,980 x 1.15%)				161

Projection of future amortized cost is a judgmental assumption due to prepayments

Immediate reversion

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Historical Loss Periods Assumption (Example 1)

FACTS

- **Reporting Date:** 12/31/22
- **Segment:** Pool of Non-Owner-Occupied CRE (1E2)
- **Amortized Cost Balance:** \$500 million
- **Remaining Life Adjusted for Prepayments:** 6 years with the following estimate of dollar attrition
 - 35% attrition end of year (EOY) 1
 - 60% attrition EOY 2
 - 70% attrition EOY 3
 - 80% attrition EOY 4
 - 90% attrition EOY 5

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Assumption – Historical Loss Periods

- **Scenario 1 (Through-the-Cycle):** 2008 to 2021 long-term average annual loss rate – .20%
- **Scenario 2 (Incurred):** Most recent 3 years average annual loss rate (2020 to 2022) – .03%
- **Scenario 3 (Most Recent Life Cycle):** Most recent 6 years average annual loss rate (2017 to 2022) – .01%
- **Scenario 4 (Highest Life Cycle Loss Rate):** Highest rolling 6 years average (2008 to 2013) – .30%

Note: Above is not all-inclusive & other approaches could be used

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Assumption – Historical Loss Periods

Example 1: Historical Period Assumption Scenarios					
Year End	Projected Amort Cost	Scenario 1 ACL	Scenario 2 ACL	Scenario 3 ACL	Scenario 4 ACL
2022 Actual Amort Cost	\$ 500,000,000	\$ 1,000,000	\$ 150,000	\$ 50,000	\$ 1,500,000
2023	325,000,000	650,000	97,500	32,500	975,000
2024	200,000,000	400,000	60,000	20,000	600,000
2025	150,000,000	300,000	45,000	15,000	450,000
2026	100,000,000	200,000	30,000	10,000	300,000
2027	50,000,000	100,000	15,000	5,000	150,000
Quantitative ACL Total		\$ 2,650,000	\$ 397,500	\$ 132,500	\$ 3,975,000
Quantitative ACL / Loans		0.53%	0.08%	0.03%	0.80%

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Addressing Current Condition & Future Forecast Adjustments Qualitatively & Quantitatively

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Adjusting for Current Conditions & Future Forecasts

Most Common Ways for Adjusting

Quantitatively

- Picking historical loss periods similar to current & forecasted conditions
- Using migration approaches (risk rating, FICO buckets)
- Regression (predictive statistical tool)

Qualitatively

- Anchor & scorecard system (high & low watermarks)
- Subjective basis point adjustments based on directional consistency (similar to incurred)

Note: Most likely outcome is you will need some qualitative adjustments to address modeling limitations regardless of model choice

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Picking Historical Loss Periods with Similar to Current Conditions & Forecasts

- Management must create a framework on how to select historical periods similar to current conditions &/or future forecasts
- May revert to longer-term through the cycle loss history after the forecast period
- Will likely still need additional q-factors given the challenge of finding loss periods perfectly aligned to current & future forecasted conditions as well as current loan composition

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Migration

- Incorporates the impact of changes in credit quality into the quantitative output, *i.e.*, risk rating, credit score, days past due
- Tracks loss experience (loss rate, PD/LGD, etc.) based on changes in credit quality over time
- Helps to quantitatively drive reserves based on changes in credit quality rather than rely on q-factor adjustments
- Typically covers current conditions
- Has been used in incurred loss as well

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Rating	12/31/2013	12/31/2017	CECL Loss Rate	CECL Allowance 12/31/17		
Pass	\$ 858,500 A	\$ 1,237,500	0.38%	\$ 4,716.34		
Special Mention	101,000 B	247,500	6.29%	15,564.07		
Substandard	50,500 C	165,000	24.73%	40,811.20		
	<u>\$ 1,010,000</u>	<u>\$ 1,650,000.00</u>		<u>\$ 61,091.61</u>		
				<i>From previous example</i> \$ 36,126.83		
				<i>Additional reserve added by considering changes in concentrations in risk ratings</i> \$ 24,964.78		
Pass	12/31/2013	2014	2015	2016	2017	Totals
Net Charge Offs	-	370	760	550	390	\$ 2,070 D
Starting Loan Balance	858,500 A					
Loss Percentage (D/A)	0.24%					
Current & Forecast Q-Factor Adjustment	0.14%	<i>From previous example</i>				
Total Pass CECL Lifetime Loss Rate	<u>0.38%</u>					
Special Mention	12/31/2013	2014	2015	2016	2017	Totals
Net Charge Offs		1,110	2,280	1,650	1,170	\$ 6,210 E
Starting Loan Balance	101,000 B					
Loss Percentage (E/B)	6.15%					
Current & Forecast Q-Factor Adjustment	0.14%	<i>From previous example</i>				
Total SM CECL Lifetime Loss Rate	<u>6.29%</u>					
Substandard	12/31/2013	2014	2015	2016	2017	Totals
Net Charge Offs		2,220	4,560	3,300	2,340	\$ 12,420 F
Starting Loan Balance	50,500 C					
Loss Percentage (F/C)	24.59%					
Current & Forecast Q-Factor Adjustment	0.14%	<i>From previous example</i>				
Total Substandard CECL Lifetime Loss Rate	<u>24.73%</u>					

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Why Is Regression Used in CECL?

- Introduction of forecasting component in CECL has led many software vendors & financial institutions to consider predictive modeling
- Financial institutions industry has been using these techniques for credit risk modeling for other purposes
 - Credit scoring (risk grading)
 - Stress testing (DFAST)



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How Is Regression Used in CECL?

- Used to determine what **economic &/or portfolio risks** drive loss & predict future outcomes
 - Typically used to predict the credit loss component (loss rate, default rate, etc.)
 - Regression models can be leveraged in most CECL methodologies
- Regression models estimate loss experience over the reasonable & supportable forecast period based on projected economic conditions & current portfolio characteristics
 - Should require less economic q-factor adjustments

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Qualitatively Adjusting – Anchor/Scorecard

- Use historical worst case & best scenarios to develop range for adjustments
 - Management judgement necessary in setting the range
- Create a rating/scorecard system to determine where on the range you should adjust to
 - This is where most of the management judgement comes in
 - Management needs to build documentation to support conclusions (trends, data sources, etc.)
- Provides a structured & consistent framework, *i.e.*, more supportable
- Can bring more volatility
- May still need additional q-factor adjustments for factors not present in historical experience

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Qualitatively Adjusting – Anchor/Scorecard

FACTS: Using the output from the Historical Loss Periods (Example 1) as follows

- Quantitative baseline output = Scenario 1 (0.53%)
- Highwater mark for q-factors = Scenario 4 (0.80%)
- Max amount of q-factor adjustment = 0.27% (0.80% - 0.53%)

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Qualitatively Adjusting – Anchor/Scorecard

FACTS CONTINUED

- The scorecard contains a four-category approach when assessing q-factors
 - + **No Change** – No additional risk (use quantitative output)
 - + **Minor Risk** – Minimal additional risk
 - + **Moderate Risk** – Moderate additional risk
 - + **Major Risk** – Significant additional risk
- Management analyzes q-factors, including trends of historical experience to current conditions & reasonable & supportable forecasts
- Managements decides on a **Moderate Risk** score

Note: For illustrative purposes. Actual process would be more detailed

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Qualitatively Adjusting – Anchor/Scorecard

Scorecard	ACL / Loans	Increase
No Change	0.53%	
Minor Risk	0.62%	0.09%
Moderate Risk	0.71%	0.09%
Major Risk	0.80%	0.09%
		0.27%

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Final Thoughts

- As with most of Topic 326, institutions have a lot of latitude in determining how to adjust for current conditions & future forecasts
 - There will be a lot of variety in how this is performed
- Documentation is crucial to understand why management believes the process used is appropriate & can be done consistently
- Remember: it is not as simple as applying the same q-factor adjustment amounts under incurred to your CECL model output

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Other Webinars

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2023 Adopter CECL Implementation Road Map Series

- January 10, 2023: Impact of CECL on Internal Controls
- August 23, 2022 recording: Debt Securities & Unfunded Commitments
- July 14, 2022 recording: Documenting Your CECL Adoption
- April 28, 2022 recording: Regression & Correlation – What It Is & How It's Used in CECL
- December 8, 2021 recording: CECL Methodologies & Selection Process

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