IMPACT ⌃ 2023

CORNERSTONE ANNUAL MEETING & COUNCIL FORUM

Current Expected Credit Losses (CECL) Implementation – We're Live!
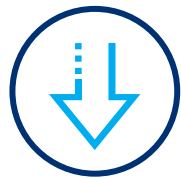
Dan Price, CPA, CFA

Trellance

VP, Prescriptive Analytics

Agenda

- CECL Timeline Update

- Methodology Selection

- Macroeconomic Impacts

- Strategies to Minimize Volatility

- Preparing for the Audit

- Budgeting Considerations

- Leveraging your CECL Data

What is CECL?

New Credit Loss Methodology

- Life of Loan Losses

- Leverages Existing Credit Management Practices

- Forward Looking Information

Why CECL?

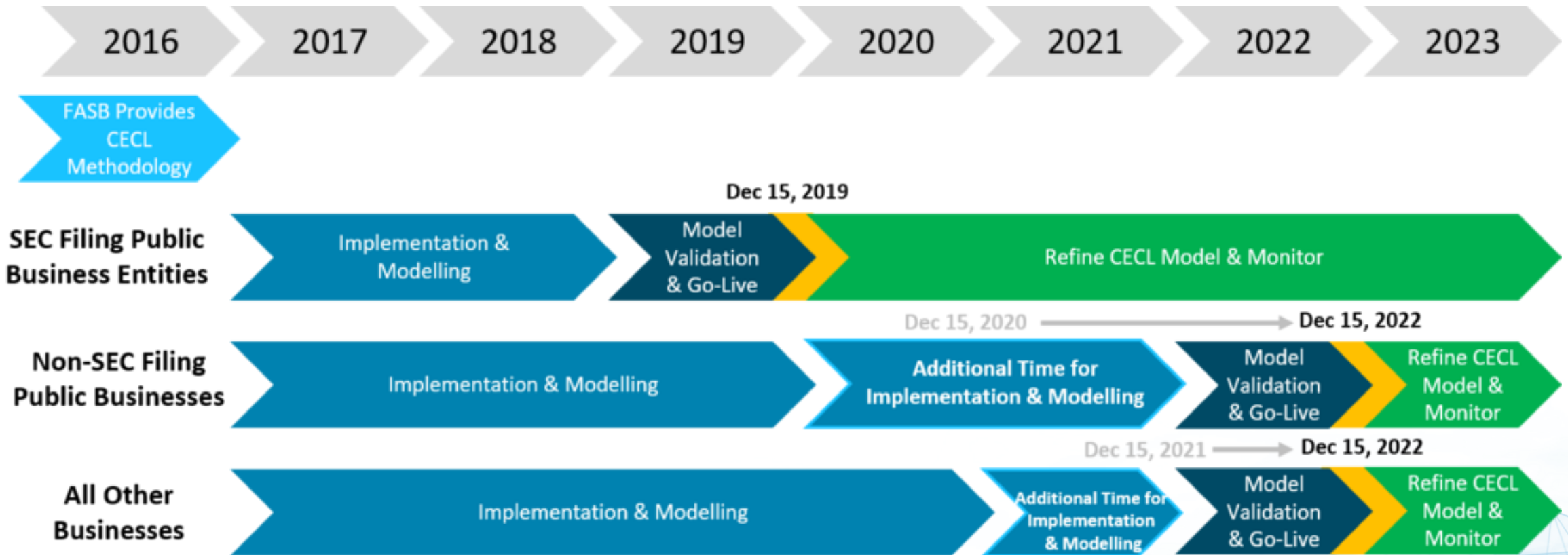**Proposed following the Great Recession**

Financial institutions were

- Under reserved going into recession

- Over reserved coming out

Attempt to make reserves proactive

ALLL as % of Total Loans

Loan $ increased 23.86%
LLR $ increased 1,327.53%

Loan $ increased 98.85%
LLR $ increased 26.00%

Financial Crisis

Source: Callahan & Associates

Sample Implementation Timeline

Methodology Selection and Implementation

	WARM No Data	PD/LGD Current Loan Level Data	Vintage Historical Loan Level Data
Pros	• **Easy** to document and understand • **Fast** implementation • **Utilizes** high level data	• **Precise** – calculated at the loan level • **Utilizes** industry level loss history	• **Easy** to document and understand • **Specific** to your experience
Cons	• **Imprecise** • **Ignores** changes in credit quality	• **Black box** • Industry data **may not re**flect your credit union	• **Less precise** • **Requires** historical data

Weighted Average Remaining Maturity

Vintage Pooling

Vintage Analysis - CECL

Table Type
Table

Allowance Group
AUTO - DIRECT USED

Report_Date
12/31/2021

The table below illustrates your expected lifetime losses using a static pool methodology. For the purposes of this analysis, your loan portfolio is broken down into many different static pools. One for each Allowance Grouping (Portfolio Segment) and Vintage Year.

Note: The Vintage Calculation is performed at the portfolio segment level. It is not appropriate to aggregate multiple portal segments in calculating future losses.

	Historical Loss - Year 1	Historical Loss - Year 2	Historical Loss - Year 3	Historical Loss - Year 4	Historical Loss - Year 5	Historical Loss - Year 6	Historical Loss - Year 7
2012	0.00%	0.06%	0.37%	0.63%	0.11%	0.15%	0.00%
2013	0.00%	1.18%	0.39%	0.81%	0.03%	0.03%	0.00%
2014	0.28%	0.61%	0.72%	0.06%	0.06%	0.01%	
2015	0.74%	0.72%	0.43%	0.13%	0.08%		
2016	0.32%	0.88%	0.53%	0.33%			
2017	0.61%	0.76%	0.74%				
2018	0.80%	0.58%					
2019	0.62%						

	Avg Yr 1	Avg Yr 2	Avg Yr 3	Avg Yr 4	Avg Yr 5	Avg Yr 6	Avg Yr 7
	0.42%	0.69% **A**	0.53%	0.39%	0.07%	0.06%	0.00%

	Original Balance	Current Balance	Expected Loss - Year 1	Expected Loss - Year 2	Expected Loss - Year 3	Expected Loss - Year 4	Expected Loss - Year 5	Expected Loss - Year 6	Expected Loss - Year 7	Vintage Expected Losses
2014	59,043,535	0	0	0	0	0	0	0	0	0
2015	63,497,260	99,628	0	0	0	0	0	752	0	752
2016	60,967,085	755,418	0	0	0	0	711	26,430	0	27,141
2017	45,393,186	2,626,995	0	0	0	3,513	21,646	29,294	0	54,453
2018	47,655,252	7,928,249	0	0	5,116	125,531	33,406	30,754	0	194,806
2019	54,717,132	20,046,368	0	7,499	201,382	213,506	38,357	35,311	0	496,055
2020	79,057,478	50,124,111	5,905	369,324 **A*B**	418,965	308,482	55,419	51,018	0	1,209,114
2021	59,143,700 **B**	52,174,337	148,339	405,329	313,432	230,779	41,460	38,167	0	1,177,506
Grand Total	469,474,629	133,755,106	154,244	782,152	938,895	881,811	190,999	211,726	0	3,159,827

Probability of Default (PD) | Loss Given Default (LGD)

| Allowance Group	Current Balance	Avg. Probability of Default	Loss Given Default	Expected Net Losses	Avg. Stress Adjusted Probability of Default	Stress Adjusted Loss Given Default	Stress Adjusted Expected Losses
AUTO - DIRECT NEW	28,102,703	0.29%	5,397,359	51,318	4.29%	7,113,637	345,635
AUTO - DIRECT USED	133,755,106	0.45%	33,291,726	463,937	4.45%	41,378,625	2,192,027
AUTO - INDIRECT NEW	24,959,922	0.22%	5,592,010	34,919	4.22%	6,891,055	321,289
AUTO - INDIRECT USED	36,462,886	0.38%	10,224,679	122,166	4.38%	12,337,418	638,570
BUSINESS	121,431,336	0.32%	484,323	29,203	4.32%	7,134,500	327,760
CONS - CREDIT CARD	608,480	2.34%	609,774	17,614	6.34%	609,774	41,980
CONS - OTHER SECURED	100,327,042	0.59%	39,158,419	459,749	4.59%	44,512,554	2,302,988
CONS - SHARE SECURED	1,479,877	2.96%	0	0	6.96%	14,799	891
CONS - UNSECURED	13,212,064	1.65%	13,212,064	442,450	5.65%	13,212,064	964,021
R/E - 1ST MORTGAGE	116,572,056	0.14%	1,234,253	709	4.14%	18,754,365	761,327
R/E - HOME EQUITY	31,950,328	0.11%	814,007	7,425	4.11%	14,846,525	617,874
R/E - MANUFACTURED HOMES	104,455,449	0.09%	568,828	635	4.09%	23,967,555	981,853
Grand Total	713,317,250	0.69%	110,587,441	1,630,127	4.69%	190,772,872	9,496,216

Budgeting for CECL

Consistent Portfolio	Current Balance	ALLL - BoY	Charge Offs	Provision Expense	ALLL - EoY	Retained Earnings
12/31/2021	100,000	1,000	-1,000	1,000*	1,000	10,000
12/31/2022	100,000	1,500	-1,000	1,000	1,500	9,500
12/31/2023	100,000	1,500	-1,000	1,000	1,500	9,500

*Pre CECL

Increased Risk

Growing Portfolio
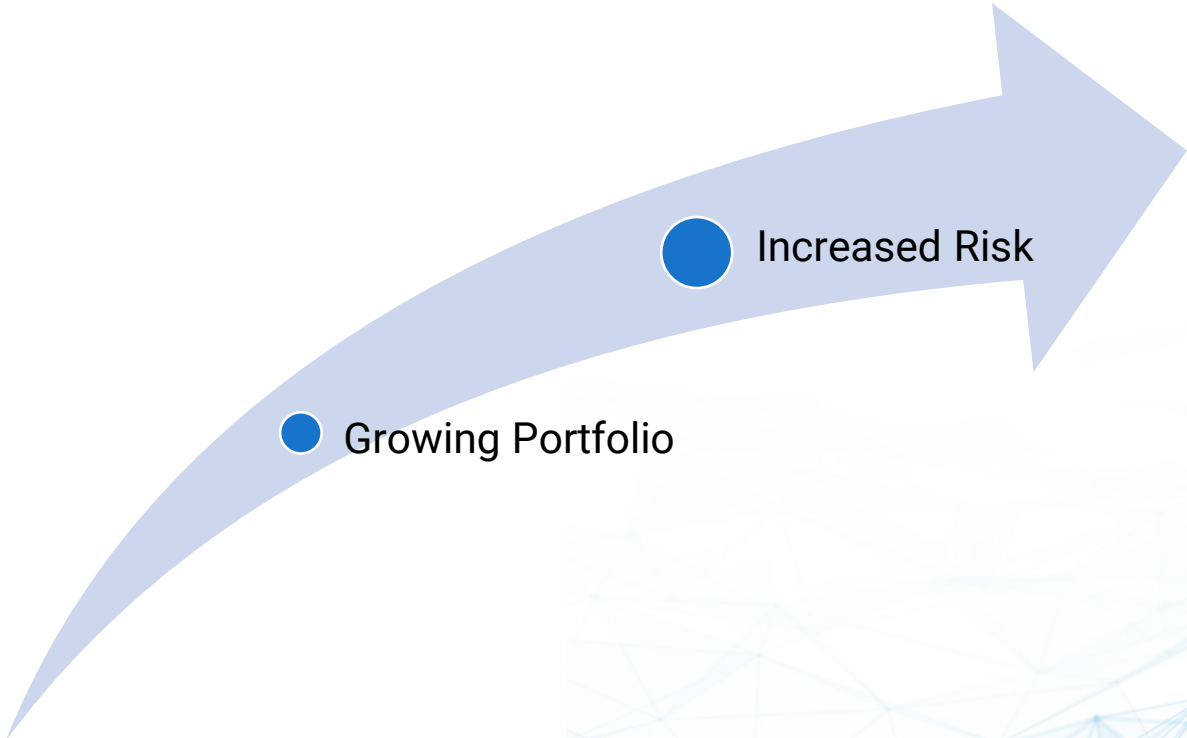
Budgeting for CECL − Credit Card Delinquency
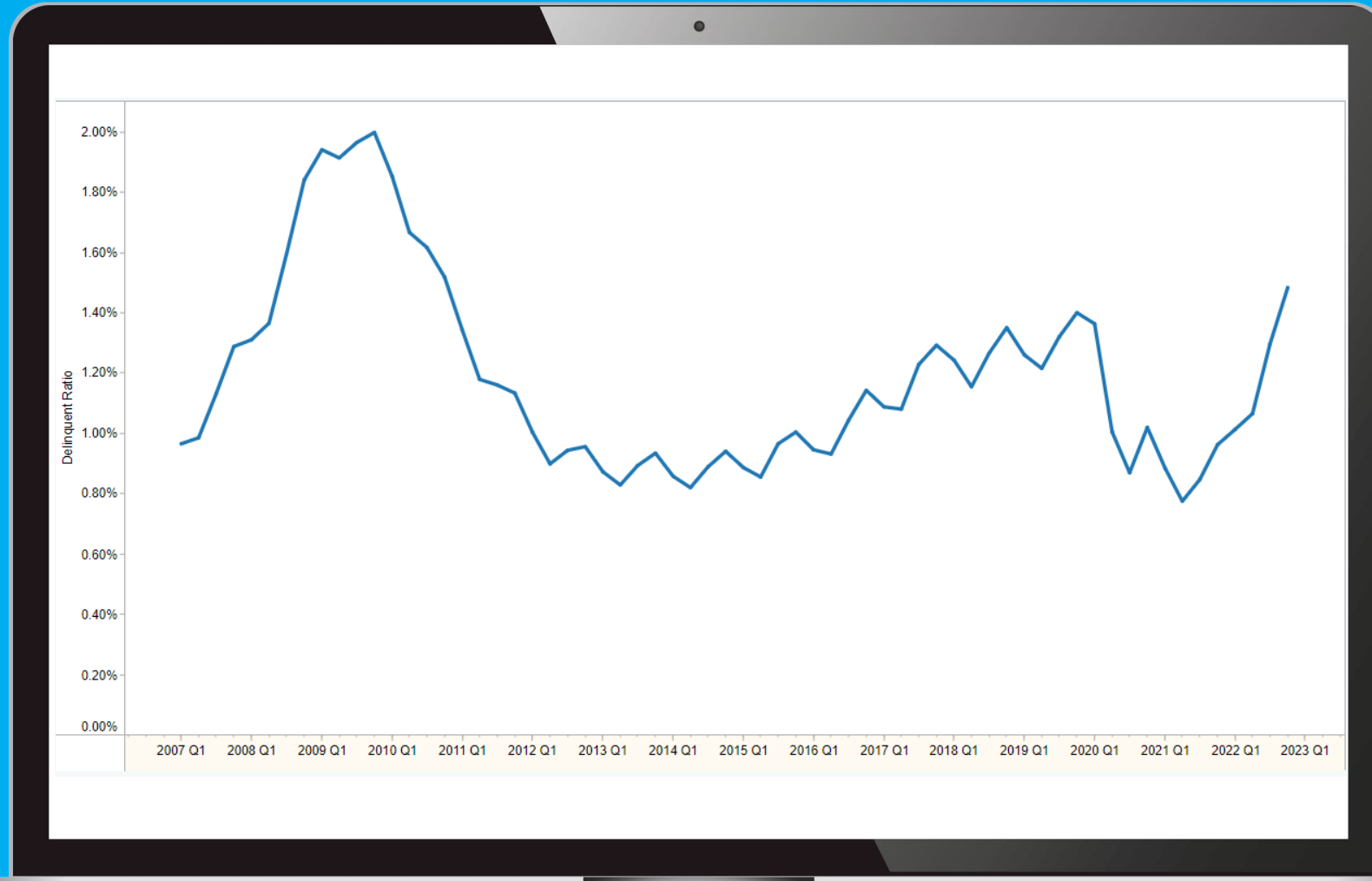
Planning and Budgeting Considerations

- Benefits of a big prior period adjustment

  - Never hits income

  - Impact to net worth phased in over 3 years

- Growth and ROA now in conflict

  - Communicate this conflict to EVERYONE

  - Consider adjustments to KPIs

CECL Policy Hacks – Mitigating Volatility

- Use objective verbiage

- Quantify aggressively and reserve conservatively

- Use peak to trough real estate adjustments

- Adjust assumptions move inversely to actual results (revert to mean)

Macroeconomic Adjustments

CECL Policy Hacks – Mitigating Volatility

- Consider Including Subjectivity Thresholds

Beginning of Month ACL	31,000,000	December CECL Reserve	
Less: Loans Charged Off	750,000		
Pre-Entry ACL	30,250,000		
Calculated ACL	30,000,000	January CECL Reserve	

Possible Option A

Calculated Provision Expense/(Benefit)	(250,000)	0.8%	Current ACL is within 5% of requirement. Citadel deems this to be an immaterial difference within policy limits and does not require an entry as of January 31, 2022
Provision Expense in January	0		

Possible Option B

Change in Required ACL	(1,000,000)	-3.2%	
			Current ACL is within 5% of requirement. Per Citadel's CECL Policy, we will elect to phase in the overall change over a 90 day period using a straight line methodology.
Smoothed ACL	30,666,667		
Provision Expense in January	416,667		

Qualitative Adjustments

- How do we address other qualitative adjustments?

  - Lending policies and procedures
  - **Macroeconomic conditions**
  - **Nature and volume of the loan portfolio**
  - Experience of staff
  - **Volume and severity of past due loans**
  - Loan review system
  - **Value of collateral**
  - **Changes in concentrations**
  - Other external factors (competitive/legal/regulatory)

Adjusting for Changes in Credit Quality

Adjusting for a Severe Recession

Report_Date
12/31/2021

CECL Reserve Summary

PeerGroupName	CECL Model Selected	Original Balance ($ 000s)	Current Balance ($ 000s)	Expected Net Losses	Vintage Adj. Expected Losses	Qualitative Economic Adjustment	Weighted Scenario Adjustment	CECL Reserve	% of Loans
AUTO - DIRECT NEW	Vintage Q	82,204.8	28,102.7	51,318	91,899	96,651	0.34%	188,550	0.67%
AUTO - DIRECT USED	Vintage Q	469,474.6	133,755.1	463,937	2,622,485	594,245	0.44%	3,216,730	2.40%
AUTO - INDIRECT NEW	Vintage Q	140,511.7	24,959.9	34,919	168,467	100,472	0.40%	268,938	1.08%
AUTO - INDIRECT USED	Vintage Q	148,144.7	36,462.9	122,166	425,061	182,749	0.50%	607,810	1.67%
BUSINESS	PD	147,866.6	121,431.3	29,203	2,844,032	8,258	0.01%	37,461	0.03%
CONS - CREDIT CARD	Vintage Q	0.0	608.5	17,614	0	10,965	1.80%	10,965	1.80%
CONS - OTHER SECURED	Vintage Q	193,869.8	100,327.0	459,749	4,246,190	699,070	0.70%	4,945,259	4.93%
CONS - SHARE SECURED	Vintage Q	4,667.4	1,479.9	0	316,149	0	0.00%	316,149	21.36%
CONS - UNSECURED	Vintage Q	64,902.4	13,212.1	442,450	602,300	234,707	1.78%	837,007	6.34%
R/E - 1ST MORTGAGE	PD	405,040.9	116,572.1	709	4,736	22,217	0.02%	22,926	0.02%
R/E - HOME EQUITY	PD	78,648.7	31,950.3	7,425	314	14,541	0.05%	21,966	0.07%
R/E - MANUFACTURED HOMES	PD	82,141.6	104,455.4	635	0	10,239	0.01%	10,874	0.01%
Grand Total		1,817,473.3	713,317.2	1,630,127	11,321,633	1,974,112	0.28%	10,484,636	1.47%