



2019

LENDERS & CHIEF CREDIT OFFICERS CONFERENCE

Driving Growth, Sustaining Performance



CECL Approach & Preparedness

Aaron Lucey

**Vice President, Information Security Officer
Summit State Bank**

Brian Reed

**EVP, Chief Credit Officer
Summit State Bank**

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CECL CONSIDERATIONS

- Small, non-complex bank
- Stable loan portfolio
 - Loan growth maintains historic mix of business and product concentrations
- Consistent underwriting guidelines
- High credit quality
- Bank creates new position in 2018
 - Information Security Officer and enterprise risk management function reporting to CEO
- Bank implements internal CECL model in 2018; continuing to review external models
- Ready for 2020 “go-live” date with 2019 quarterly parallel runs
- Early adopter and industry leader:
 - Model presented at GFMI 5th Edition CECL conference, December 2018
 - Model presented at WBA Lenders & Chief Credit Officers Conference, October 2019

MODEL OVERVIEW

- Published, open-sourced Advanced Risk Consulting Expected Loss Model (ARC ELM)
- A proven top-down methodology to derive and forecast EL, which is directly tied to reasonable and supportable macroeconomic forecasts
- Multi-stage regression model that explicitly manages the time delays between nonaccruals, gross charge-offs and recoveries
- Model is based on Nobel Laureate and Economist Lawrence Klein's structural equation modeling and the New York Federal Reserve's CLASS Model
- Delivers a sensitive CECL Allowance with stable quarterly updates to the allowance governance process
- Follows AICPA recommendation that CECL models "Must correlate Life Cycle loss History with Economic Cycles" and "Need to understand correlation with regression and forecasting factors" *
- Provides: Policies and procedures over the systems and controls that maintain the estimate as well as the methodology, summary or consolidation of balance sheet, validation of the methodology, and periodic adjustments to the estimates process

*<https://www.aicpa.org/content/dam/aicpa/interestareas/frc/accountingfinancialreporting/downloadabledocuments/current-expected-credit-loss-implementation.pdf>

MODEL APPROACH

$$\text{Nonaccruals} = V_1 + \mu$$

$$\text{Gross Charge-offs} = \text{Nonaccruals}_{t-n} + V_2 + \mu$$

$$\text{Recoveries} = \text{Gross Charge-Offs}_{t-n'} + V_3 + \mu$$

Where:

V_1 , V_2 , and V_3 are vectors of economic factors

μ is an error term, and

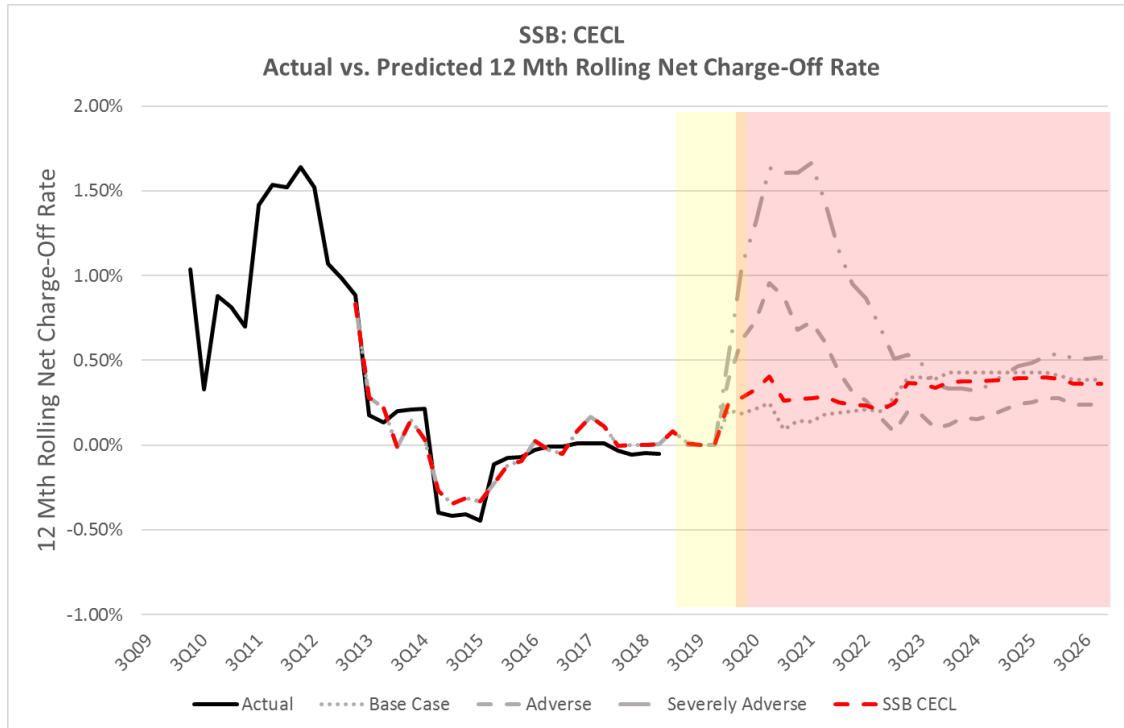
$t-n$ and $t-n'$ represent different time lags

- Incorporates the complete loan default cycle and timing effects into the model
- Regression integrates multiple economic variables directly into the model
- Independent variables maintain proper logic: if GDP goes down, EL goes up
- Classical Linear Regression model assumptions tested and validated

LOSS HISTORY

	End of 1Q2018		3Q2009 thru 1Q2018		1Q2019	
	Loan Balance \$'s	% of Portfolio	Gross Loss \$'s	% of Loss	Loan Balance \$'s	Shifted % of Loss
Nonfarmland Non-Owner-Occupied Nonresidential	160,290	36.18%	4,318	19.33%	167,991	20.26%
Nonfarmland Owner-Occupied Nonresidential	106,120	18.53%	20	12.80%	119,850	14.46%
Farmland	58,386	13.24%	4	0.03%	64,222	0.04%
C&I	41,963	9.56%	2,663	19.72%	42,572	12.98%
Secured Multi-Family	28,553	7.25%	784	5.81%	33,623	5.73%
RE-Construction	14,466	3.05%	3,976	29.44%	24,330	38.07%
Agricultural Production	1,609	0.39%	0	0.00%	1,116	0.00%
Commercial	411,386	88.20%	11,765	87.12%	453,704	91.53%
1-4 Family Residential	44,424	10.34%	1,070	7.92%	50,280	5.22%
HELOC/Revolving	4,689	0.95%	0	0.00%	3,158	0.00%
1-4 Family Residential Jr. Lien	2,188	0.43%	460	3.40%	3,210	2.72%
Consumer & Credit Cards	56	0.09%	209	1.55%	226	0.53%
Consumer	51,357	11.80%	1,739	12.88%	56,874	8.47%
Total	462,744	100.00%	13,504	100.00%	510,578	100.00%

MODEL OUTPUT

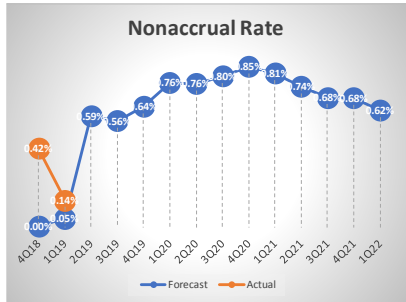


	EL Allocation %	Life of Loan (Q's)	EL \$'s	Life of Loan EL %
CRE Non-Owner-Occupied	20.3%	22	1,386.5	0.83%
CRE Owner-Occupied	14.5%	22	989.2	0.83%
Farmland	0.0%	10	0.9	0.00%
C&I	13.0%	10	298.9	0.70%
Secured Multi-Family	5.7%	33	693.8	2.06%
RE-Construction	38.1%	10	877.0	3.60%
Agricultural Production	0.0%	10	0.0	0.00%
1-4 Family Residential	5.2%	19	284.7	0.00%
HELOC/Revolving	0.0%	19	0.0	0.00%
1-4 Family Residential Jr. Lien	2.7%	19	148.2	4.69%
Consumer & Credit Cards	0.5%	19	29.1	0.91%
1Q19 CECL Allowance	100.0%		4,708.4	0.91%
1Q19 ALLL			6,029.1	

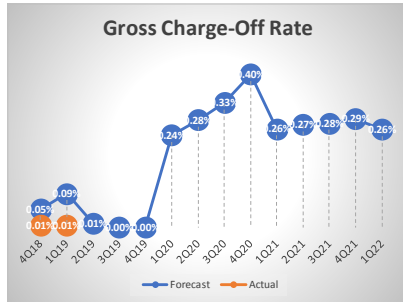
CECL ALLOWANCE "WALK"

Quarter	Outstanding Balance	12 Mth Net Charge-Off Rate	Qrtly Net Charge-Off Rate	EL \$'s	CRE Non-Owner-Occupied (EL Allocation %: 20.3%)	CRE Owner-Occupied (EL Allocation %: 14.5%)	Farmland (EL Allocation %: 0.0%)	C&I (EL Allocation %: 13.0%)	Secured Multi-Family (EL Allocation %: 5.7%)	RE-Construction (EL Allocation %: 38.1%)	Agricultural Production (EL Allocation %: 0.0%)	1-4 Family Residential (EL Allocation %: 5.2%)	HELOC/Revolving (EL Allocation %: 0.0%)	1-4 Family Residential Jr. Lien (EL Allocation %: 2.7%)	Consumer & Credit Cards (EL Allocation %: 0.5%)	
1Q19	516,128,417	-0.01%	0.00%	(17,361)	(3,518)	(2,510)	(7)	(2,253)	(994)	(6,609)	(0)	(906)	(0)	(471)	(93)	
2Q19	516,128,417	0.01%	0.00%	14,258	2,889	2,061	6	1,850	816	5,428	0	744	0	387	76	
3Q19	516,114,160	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	
4Q19	516,114,160	0.00%	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	
1Q20	516,114,160	0.24%	0.06%	314,035	63,634	45,398	127	40,751	17,981	119,556	0	16,384	0	8,528	1,676	
2Q20	515,800,125	0.28%	0.07%	365,252	74,012	52,803	148	47,397	20,914	139,054	0	19,056	0	9,919	1,949	
3Q20	515,434,872	0.33%	0.08%	424,070	85,931	61,306	172	55,029	24,281	161,447	0	22,124	0	11,516	2,263	
4Q20	515,010,802	0.40%	0.10%	520,095	105,389	75,187	211	67,490	29,780	198,004	0	27,134	0	14,124	2,776	
1Q21	514,490,707	0.26%	0.07%	334,768	67,835	48,396	136	43,441	19,168	127,449	0	17,465	0	9,091	1,787	
2Q21	514,155,940	0.27%	0.07%	348,406	70,599	50,367	141	45,211	19,949	132,641	0	18,177	0	9,462	1,860	
3Q21	513,807,534	0.28%	0.07%	353,268	71,584	51,070			20,227			18,431	0	9,594	1,885	
4Q21	513,454,266	0.28%	0.07%	365,184	73,998	52,793			20,910			19,052	0	9,917	1,949	
1Q22	513,089,082	0.25%	0.06%	324,423	65,739	46,900			18,576			16,926	0	8,810	1,732	
2Q22	512,764,659	0.24%	0.06%	304,178	61,637	43,974			17,417			15,870	0	8,261	1,623	
3Q22	512,460,480	0.23%	0.06%	296,202	60,020	42,820			16,960			15,453	0	8,044	1,581	
4Q22	512,164,278	0.21%	0.05%	262,567	53,205	37,958			15,034			13,699	0	7,131	1,401	
1Q23	511,901,712	0.25%	0.06%	316,923	64,219	45,816			18,146			16,534	0	8,607	1,691	
2Q23	511,584,789	0.37%	0.09%	469,534	95,143	67,878			26,885			24,496	0	12,751	2,506	
3Q23	511,115,255	0.36%	0.09%	461,891	93,594	66,773			26,447			24,098	0	12,544	2,465	
4Q23	510,653,364	0.34%	0.08%	433,051	87,751	62,604			24,796							
1Q24	510,220,313	0.37%	0.09%	471,108	95,462	68,106			26,975							
2Q24	509,749,205	0.38%	0.09%	480,422	97,349	69,452			27,508							
3Q24	509,268,784	0.37%	0.09%	477,215					27,324							
4Q24	508,791,569	0.38%	0.10%	483,411					27,679							
1Q25	508,308,158	0.39%	0.10%	492,402					28,194							
2Q25	507,815,756	0.39%	0.10%	500,068					28,633							
3Q25	507,315,688	0.40%	0.10%	502,630					28,780							
4Q25	506,813,058	0.40%	0.10%	508,120					29,094							
1Q26	506,304,938	0.39%	0.10%	493,067					28,232							
2Q26	505,811,871	0.36%	0.09%	455,913					26,105							
3Q26	505,355,959	0.36%	0.09%	455,502					26,081							
4Q26	504,900,457	0.36%	0.09%	456,687					26,149							
1Q27	504,443,770	0.36%	0.09%	450,621					25,802							
					CECL Allowance	1,386,473	989,153	933	298,917	693,848	876,969	0	284,737	0	148,214	29,129

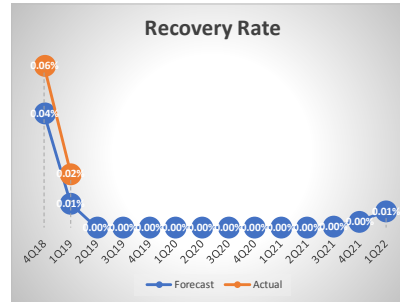
CECL DASHBOARD & MODEL INPUTS



1Q19 is worse than Forecast



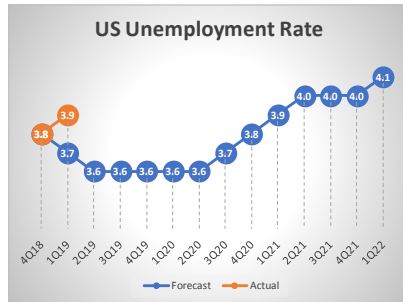
1Q19 is better than Forecast



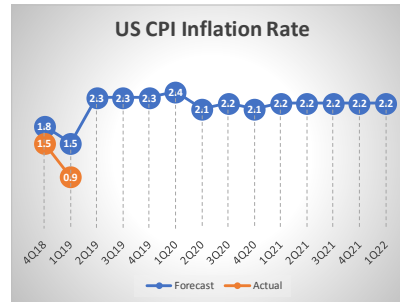
1Q19 is better than Forecast



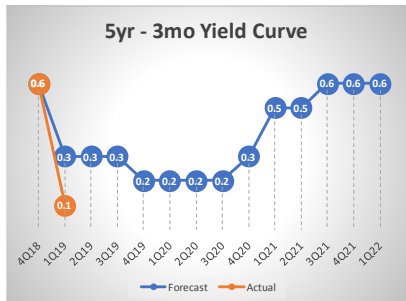
4Q18 is worse than Forecast



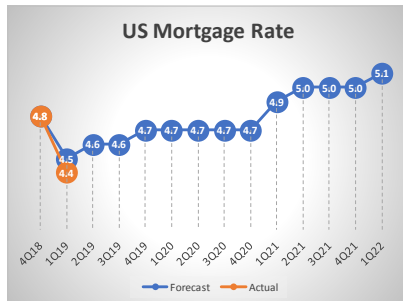
1Q19 is worse than forecast



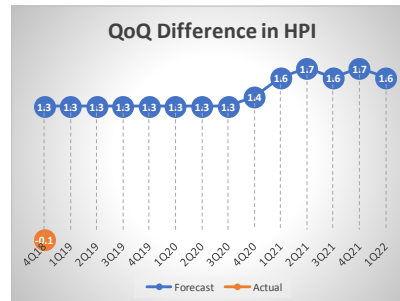
1Q19 is better than forecast



1Q19 is worse than forecast



1Q19 is better than forecast



4Q18 is worse than Forecast

Internal Variables

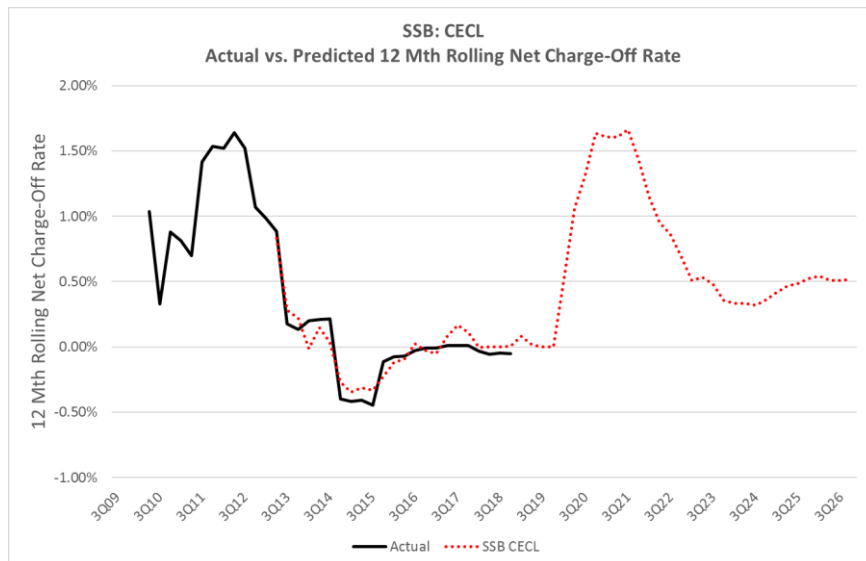
- SSB's Nonaccrual Rate
- SSB's Gross Charge-Off Rate (rolling 4 quarters)
- SSB's Recovery Rate (rolling 4 quarters)

External Economic Variables

- Real GDP Growth Rate (QoQ % Chg annualized)
- US Unemployment Rate (quarterly average)
- US CPI Inflation Rate (QoQ annualized)
- 5 Year - 3 Month Yield Curve (quarterly average)
- US 30 Year Mortgage Rate (quarterly average)
- House Price Index (QoQ Difference)

MODEL TESTING

- Complete model validation and documentation available
- SSB's 1Q2019 CECL Allowance of \$4,708k compared to SSB's 1Q2019 Allocated ALLL of \$5,244k
- Challenger Models and Stress Testing
 - External consultant's estimated life of loan losses were \$4,815k at 4Q2018 compared to SSB's CECL Allowance of \$4,230k at 4Q2018
 - External software CRE Stress Test model (run 4Q2018) projected \$25.8MM in peak EL compared to SSB's stressed CECL peak EL at \$20.3MM (1Q2019 run with peak loss in 2Q2020)



While the ARC ELM is not directly a stress test, replacing the OCC's DFAST Base Case Scenario with only the Severely Adverse Scenario demonstrates that expected net loss rate is comparable to historical net loss rate over the Great Recession.

BRIAN REED, EVP & CCO



Professional and Industry Experience

- EVP and CCO for over 13 years at **Summit State Bank** and **First Community Bank**
- Over **35 years of banking experience**
- Managed First Community Bank's credit portfolio through the last severe downturn, developing **best practices for ALLL** models while managing results to regulatory expectation
- Early in his career, worked as a commercial lender focusing on **C&I, CRE and Construction**
- **Large bank experience** at Continental Bank in Chicago and PNC Bank in Pittsburgh

EDUCATION, LICENSES AND CERTIFICATIONS

- Master's from American Graduate School of International Management, Arizona
- B.A. Business Economics, University of California at Santa Barbara

Community Service

- As a Sonoma County resident, Brian serves on three non-profit Boards
- Active member of Rotary for over 21 years, including Club President twice

AARON LUCEY, VP & ISO



EDUCATION, LICENSES AND CERTIFICATIONS

- EMBA Leadership, Sonoma State University, California
- B.A. Applied Financial Economics, Sonoma State University, California

Professional and Industry Experience

- Developed and managed cross functional risk solutions at **Bank of the West** which included a design update to the **ALLL qualitative framework**, implementation of **CCAR** Principle 1: Sound Foundational Risk Management best practices, and delivering a new credit strategy framework incorporating risk-based pricing and loan-level capital calculations.
- Managed the portfolio credit risk team at **Rabobank, N.A.** that created and delivered the initial annual **Dodd-Frank Act Stress Test** submission, which passed both regulatory and accounting scrutiny.
- Managed quarterly analysis of modeled natural catastrophes at **Allianz (Fireman's Fund)** estimating and reporting **loss liabilities and capital** requirements.

Selected Papers

- White Paper: Advanced Risk Consulting Expected Loss Model (ARC ELM) For Current Expected Credit Losses (CECL) October 2017 (revised February 2018) – Published:
 - Volume 7, Issue 19, 2018, Risk Management & Analysis in Financial Institutions eJournal
 - Volume 8, Issue 17, 2018, Microeconomics: Intertemporal Consumer Choice & Savings eJournal
 - Volume 7, Issue 14, 2018, Econometric Modeling: Capital Markets – Portfolio Theory eJournal
 - Volume 7, Issue 25, 2018, Econometric Modeling: Capital Markets – Risk eJournal
 - Volume 3, Issue 29, 2018, Monetary Economics: Financial System & Institutions eJournal
- “Understanding the Law of Demand” – Published: March 2006, Wine Business Monthly; Presented: Moss-Adams LLP Industry Roundtable, February 2006
- “Forecasting California Wine Grape Supply Cycles” – Published: December 2005, Wine Business Monthly; Presented: 2006 and 2008 Appraisal Institute Vineyard Valuation Seminar
- “Attracting Entry Level Drinkers: Are Wine Coolers a Gateway to Wine Consumption?” – Published: November 2005, International Journal of Wine Marketing; Presented 2006 Western Economic Association International Conference