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Practical Methods Smaller, Less Complex Community Banks Can Use as a Starting Point for CECL

Speakers from:

- **Board of Governors of the Federal Reserve System (FRB)**
- **Federal Deposit Insurance Corporation (FDIC)**
- **Conference of State Bank Supervisors (CSBS)**
- **Financial Accounting Standards Board (FASB)**
- **U.S. Securities and Exchange Commission (SEC)**

February 27, 2018

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Welcome everyone

- **Today's session**
- **Questions:**
  - Email your question to: rapid@stls.frb.org

    or
  - Use the "Ask Question" button in the webinar tool:
- **This call is being recorded and will be available immediately following the session.**
  - Archived recording can be accessed using the same link as today's webinar:

    https://www.webcaster4.com/Webcast/Page/583/24368
- **A survey will be delivered via email following the call. Let us know your thoughts or ideas for future sessions.**

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Today's Presenters

- **FRB**
  - **Joanne Wakim**, Chief Accountant
  - **Sarah Chae**, Senior Accounting Policy Analyst
- **FDIC**
  - **Robert Storch**, Chief Accountant
  - **John Rieger**, Deputy Chief Accountant
- **CSBS**
  - **Kyle Thomas**, Vice President, Supervision & Accreditation
- **FASB**
  - **Shayne Kuhaneck**, Assistant Director
- **SEC**
  - **Sagar Teotia**, Deputy Chief Accountant

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Goals of Today's Session

- Introduce various spreadsheet-based, CECL compliant loss rate methods
- Provide a starting point for institutions to estimate CECL – the first step in a multi-step process to estimate the allowance under CECL
- Share the agencies' perspectives regarding data, process and controls
- Answer your questions

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Not **included in Today's Session**

- We are not providing a formula that allows institutions to continue today's incurred loss method
- We will not be discussing
  - data management
  - qualitative adjustments
  - segmentation

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Loss Rate Methods

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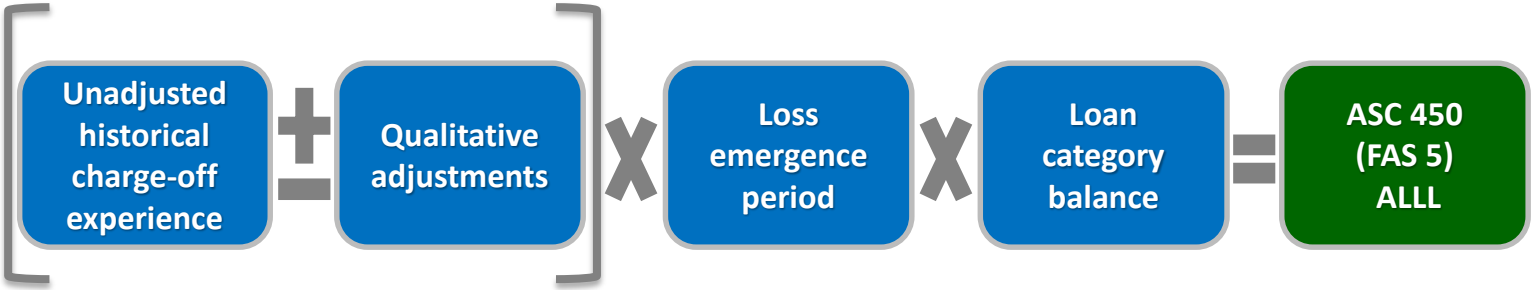
Loss Rate Methods – Today

Current U.S. GAAP



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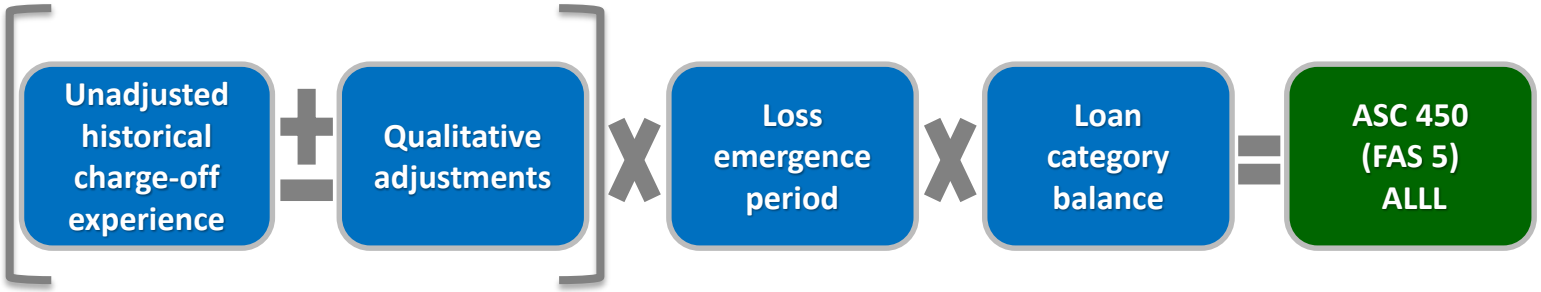
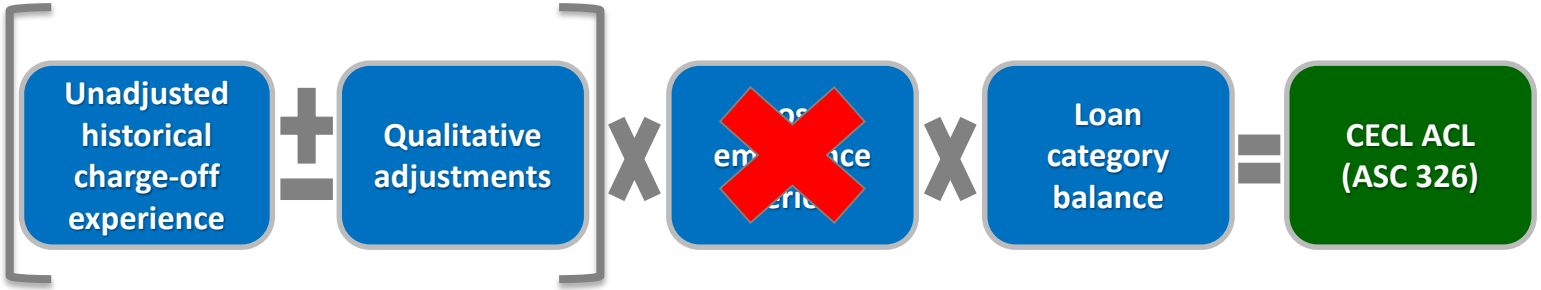
Loss Rate Methods – Today & Future

Current U.S. GAAP



CECL



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Loss Rate Methods – Today & Future

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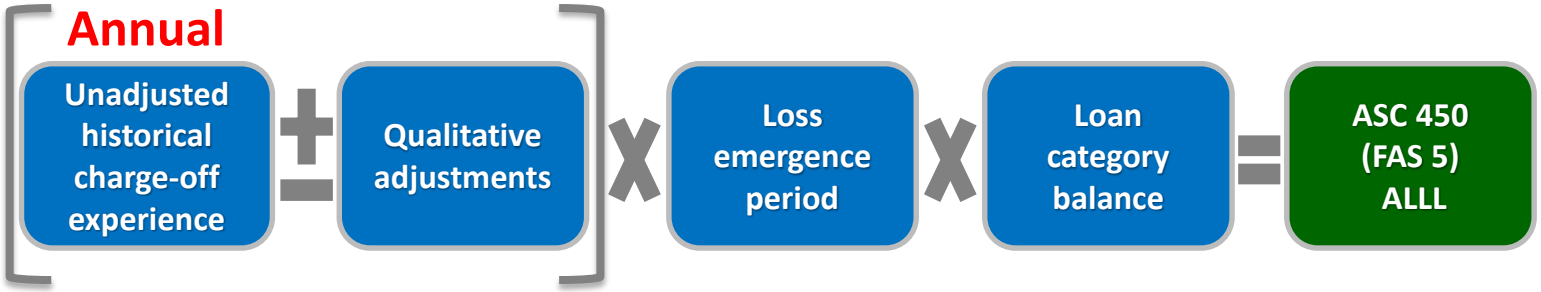
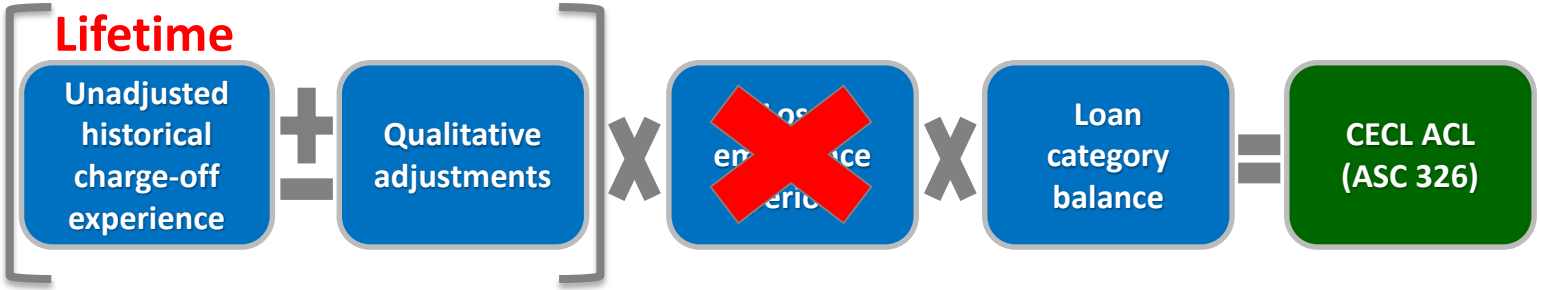


CECL



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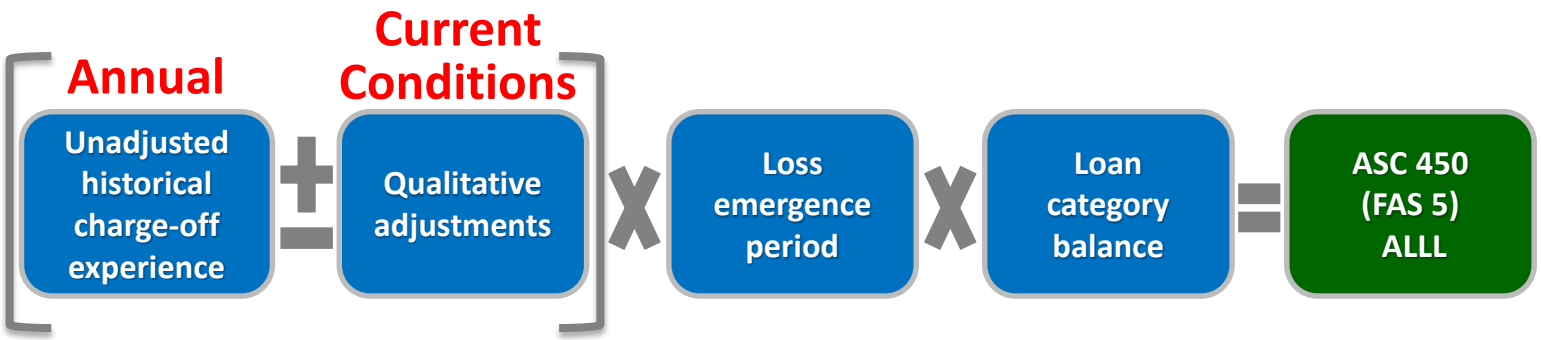
Loss Rate Methods – Today & Future

Current U.S. GAAP



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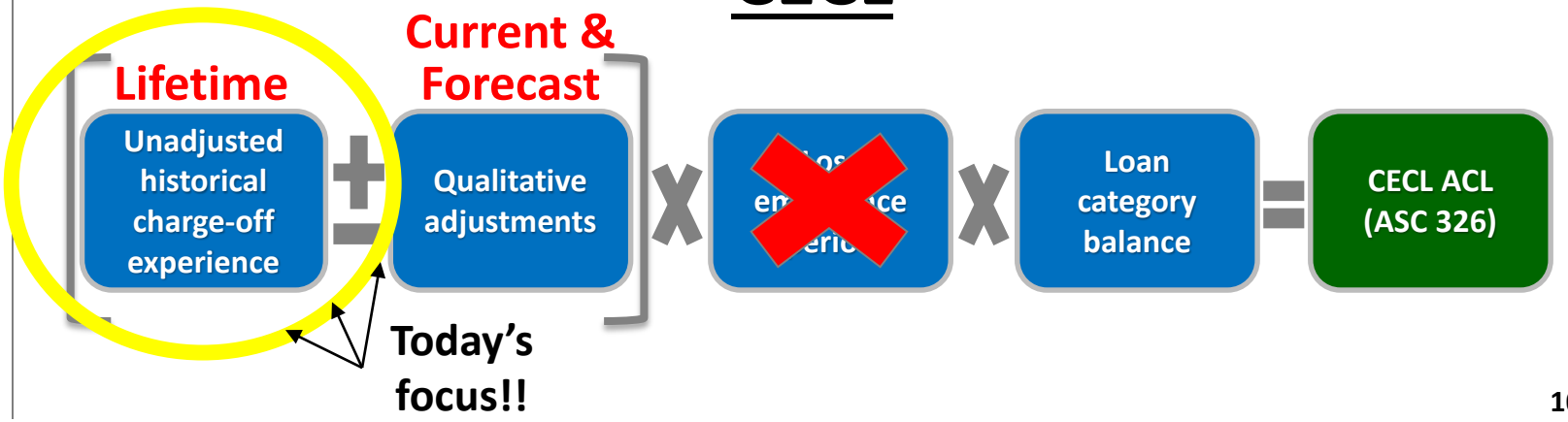

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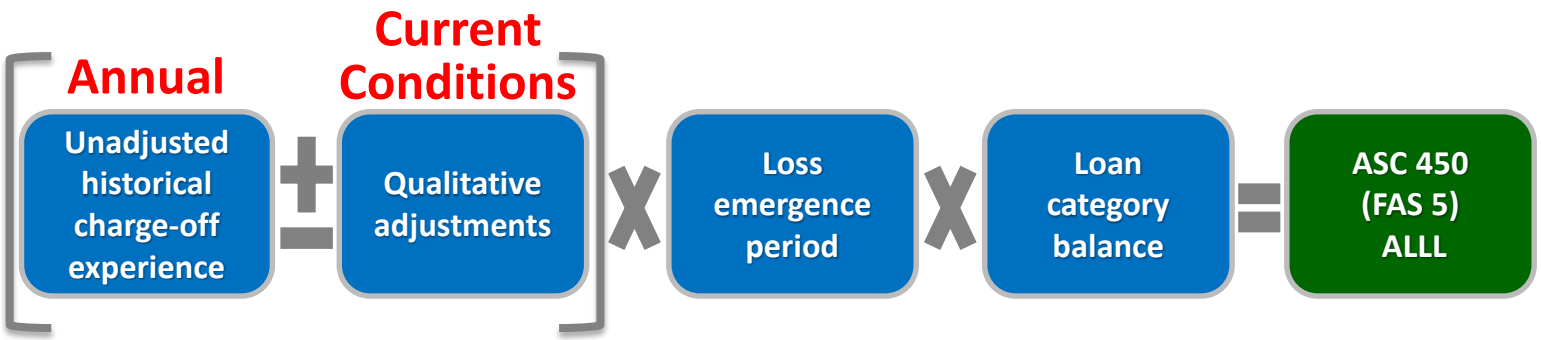
Loss Rate Methods – Today & Future

Current U.S. GAAP



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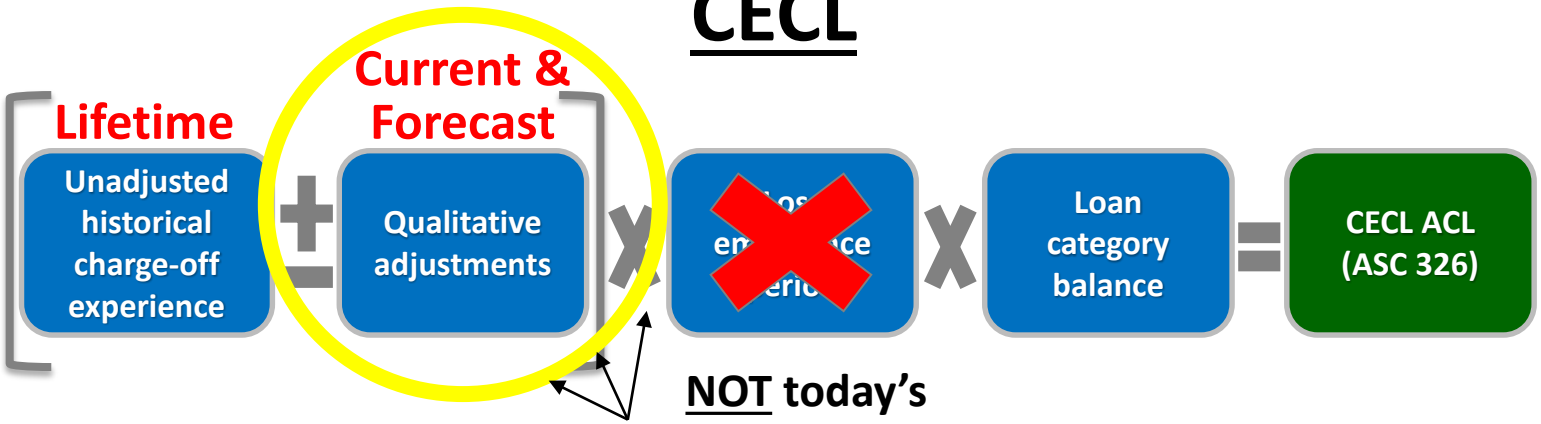

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Refresher: Incurred Loss Calculation

		A	B	C = B / A
Year End	Amortized Cost	Average Balance	Annual Net Charge-offs	Annual Charge-off Rate
2015	$ 9,350			
2016	9,398	$ 9,374	$ 32	0.34%
2017	10,779	10,088	33	0.33%
2018	11,050	10,914	50	0.46%
2019	10,738	10,894	42	0.39%
2020	10,000	10,369	31	0.30%

($ in thousands)

Totals may not sum precisely due to rounding

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Key Reminders

- All loss rate methods shown today illustrate a ***starting point***. Management must make necessary ***adjustments*** and holistically evaluate the overall result to determine the final allowance for credit losses.
- This presentation does ***not*** provide a complete list of loss rate methods.
- This list of CECL methods is ***not*** a regulator preferred or a "safe harbor" list of loss rate methods.
- Institutions may choose non-loss rate methods (e.g., PD/LGD, roll-rate, discounted cash flows).
- ***There is no one method that is appropriate for every portfolio.***

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Loss Rate Methods: Snapshot/Open Pool Method

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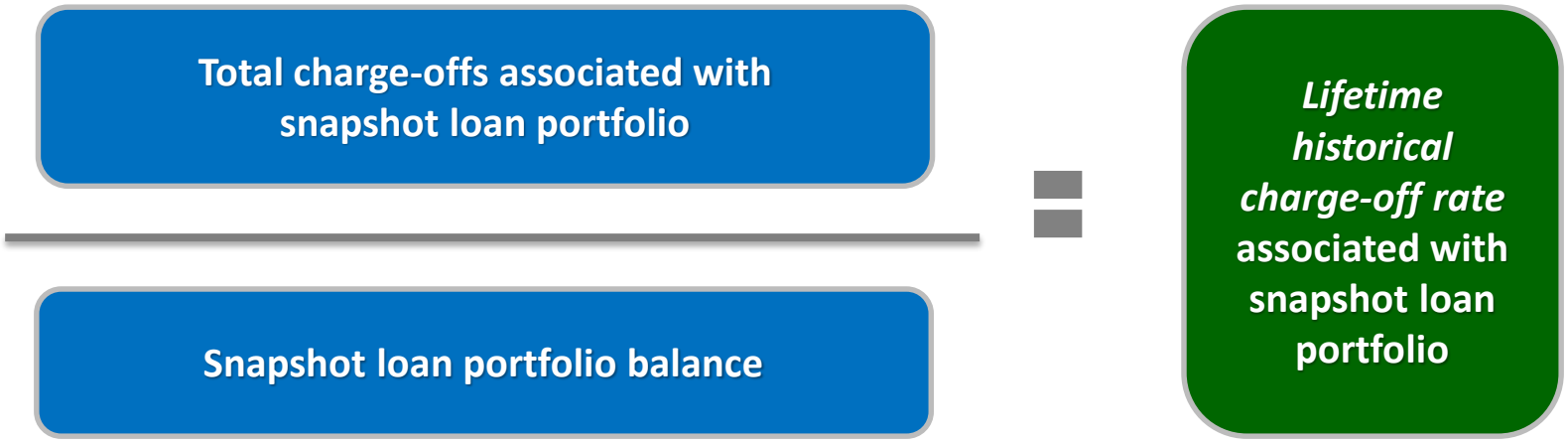
What is Snapshot/Open Pool Method?

- The snapshot/open pool method takes a snapshot of a loan portfolio at a point in time in history and tracks that loan portfolio's performance in the subsequent periods until its ultimate disposition
- Charge-offs in the subsequent periods are aggregated to derive an unadjusted lifetime historical charge-off rate



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Example 1: Snapshot/Open Pool Method

Fact Pattern:

- Calculate the allowance for credit losses as of 12/31/2020
- CRE loan portfolio (pool with loans of similar risk characteristics)
  - Amortized cost basis of $10 million
  - Average life of 5 years (contractual term adjusted by prepayments and reasonably expected troubled debt restructuring)

Current Conditions and Forecast:

- Management expects the following in 2021 and 2022:
  - Decline in real estate values
  - Rise in unemployment
- Management cannot reasonably forecast beyond 2022
- Assume 0.25% qualitative adjustment to represent both current conditions and reasonable & supportable forecasts

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Example 1: Snapshot/Open Pool Method (cont.)

Year End	Amortized Cost	Charge-offs Associated with 2015 Snapshot Balance
2015	$ 9,350	
2016	9,398	$ 32
2017	10,779	32
2018	11,050	14
2019	10,738	9
2020	10,000	2

($ in thousands)

Totals may not sum precisely due to rounding

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Example 1: Snapshot/Open Pool Method (cont.)

Year End	Amortized Cost	Charge-offs Associated with 2015 Snapshot Balance
2015	$ 9,350	
2016	9,398	$ 32
2017	10,779	32
2018	11,150	14
2019	10,738	9
2020	10,000	2

2015 Pool's cumulative charge-offs **(a)**	$	88
2015 Amort cost **(b)**	$	9,350
Unadjusted lifetime historical charge-off rate **(a)/(b)**		0.94%
Qualitative adjustments		0.25%
Total allowance for credit losses ratio as of 2020 **(c)**		1.19%
2020 Amort cost **(d)**	$	10,000
Total allowance for credit losses as of 2020 **(c)x(d)**	$	119

($ in thousands)

Totals may not sum precisely due to rounding

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Loss Rate Methods: Remaining Life Method

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What is Remaining Life Method?

- Remaining life method utilizes average annual charge-off rates and remaining life to estimate the allowance for credit losses
- For amortizing assets, remaining contractual life is adjusted by the expected scheduled payments and prepayments (i.e., paydowns)
- 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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Example 2: Remaining Life Method

Fact Pattern:

- Calculate the allowance for credit losses as of 12/31/2020
- CRE loan portfolio (pool with loans of similar risk characteristics)
  - Amortized cost basis of $10 million
  - Average life of 5 years (contractual term adjusted by prepayments and reasonably expected troubled debt restructuring)

Current Conditions and Forecast:

- Management expects the following in 2021 and 2022:
  - Decline in real estate values
  - Rise in unemployment
- Management cannot reasonably forecast beyond 2022
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SAME FACT PATTERNS AS OPEN/SNAPSHOT POOL METHOD

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Example 2: Remaining Life Method (cont.)

Step 1: Compute annual charge-off rate (same as incurred loss info)

($ in thousands)

		A	B	C = B / A
Year End	Amortized Cost	Average Balance	Annual Net Charge-offs	Annual Charge-off Rate
2015	$ 9,350			
2016	9,398	$ 9,374	$ 32	0.34%
2017	10,779	10,088	33	0.33%
2018	11,050	10,914	50	0.46%
2019	10,738	10,894	42	0.39%
2020	10,000	10,369	31	0.30%

Average annual charge-off rate **0.36%**

Totals may not sum precisely due to rounding

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Example 2: Remaining Life Method (cont.)

Step 2: *Calculation Option 1*

		A	B	A*B
Year End	*Est. Paydown*	Projected Amort Cost	Avg Annual Charge-off Rate	Allowance for Credit Losses
	2020 Actual Amortized Cost	*10,000*		
2021	*3,849*	6,151	0.36%	36
2022	*2,528*	3,623	0.36%	22
2023	*1,828*	1,796	0.36%	13
2024	*1,208*	588	0.36%	7
2025	*588*	-	0.36%	2
		Estimated unadjusted lifetime charge-off amount		$ 80
			Unadjusted lifetime historical charge-off rate	0.80%
			Qualitative adjustments	0.25%
			Total allowance for credit losses rate as of 2020	1.05%
		Total allowance of credit losses as of 2020 ($10,000 x 1.05%)		$ 105

($ in thousands)

Totals may not sum precisely due to rounding

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Example 2: Remaining Life Method (cont.)

Step 2: *Calculation Option 2*

($ in thousands)

Year End	*Est. Paydown*	Projected Amort Cost	Remg Life	
	2020 Actual Amortized Cost	*10,000*	1.00	
2021	*3,849*	6,151	2.00	
2022	*2,528*	3,623	3.00	
2023	*1,828*	1,796	4.00	
2024	*1,208*	588	5.00	
2025	*588*	-		
Weighted avg amortization adjusted remaining life			2.22	A
Average annual charge-off rate			0.36%	B
Unadjusted lifetime historical charge-off rate			0.80%	A * B
Qualitative adjustments			0.25%	
Total allowance for credit losses rate as of 2020			1.05%	
Total allowance of credit losses as of 2020 ($10,000 x 1.05%)			$ 105	

Expected paydowns can be obtained from loan system or approximated from asset and liability management practices

Totals may not sum precisely due to rounding

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Example 2: Remaining Life Method (cont.)

Step 2: ***Calculation Option 2 – Formula for 2.22 years***

		B	C	D = BxC	D/A
Year End		**Paydown**	**Remg Life**	**Calc Method 2:**	
2020 Amort Cost		*10,000*	A		
2021		3,849	1.00	3,849	0.38
2022		2,528	2.00	5,056	0.51
2023		1,828	3.00	5,484	0.55
2024		1,208	4.00	4,832	0.48
2025		588	5.00	2,940	0.29
			2.22		2.22

($ in thousands)

Calc Method 1 (excel formula):

2.22 = Sumproduct (column B: Column C) / A

Totals may not sum precisely due to rounding

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Loss Rate Methods: Vintage Method

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What is Vintage Method?

- "Vintage" refers to the year of origination
- Vintage method tracks all charge-offs associated with a specific vintage (i.e., origination year)
- Borrowers' historical charge-off pattern is used to estimate future losses

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Example 3: Vintage Method

Fact Pattern:

- Calculate the allowance for credit losses as of 12/31/2020
- CRE loan portfolio (pool with loans of similar risk characteristics)
  - Amortized cost basis of $10 million
  - Average life of 5 years (contractual term adjusted by prepayments and reasonably expected troubled debt restructuring)

Current Conditions and Forecast:

- Management expects the following in 2021 and 2022:
  - Decline in real estate values
  - Rise in unemployment
- Management cannot reasonably forecast beyond 2022
- Assume 0.25% qualitative adjustment to represent both current conditions and reasonable & supportable forecasts

SAME FACT PATTERNS AS PRIOR METHODS

Example 3: Vintage Method (cont.)

Step 1: Capture and organize historical loan charge-off data

Origination		Charge-offs ($)					Inception to Date Charge-offs	Total Lifetime Charge-offs
Amount	Date	Period 1	Period 2	Period 3	Period 4	Period 5		
$ 5,500	2015	2	19	14	8	2	45	45
$ 5,000	2016	2	35	15	8		60	
$ 3,500	2017	-	18	8			26	
$ 3,100	2018	1	14				15	
$ 3,100	2019	1					1	
$ 2,940	2020						-	

($ in thousands)

Totals may not sum precisely due to rounding

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Example 3: Vintage Method (cont.)

Step 2: Compute loan charge-off rates

Origination		Charge-offs (%)					Inception to Date Charge-offs	Total Lifetime Charge-offs
Amount	Date	Period 1	Period 2	Period 3	Period 4	Period 5		
$ 5,500	2015	0.04%	0.35%	0.25%	0.15%	0.04%	0.83%	0.83%
$ 5,000	2016	0.04%	0.70%	0.30%	0.16%		1.19%	
$ 3,500	2017	0.00%	0.50%	0.23%			0.73%	
$ 3,100	2018	0.04%	0.45%				0.49%	
$ 3,100	2019	0.02%					0.02%	
$ 2,940	2020						0.00%	

($ in thousands)

Denominator is the origination amount (NOT the outstanding loan balance) used to compute loan charge-off rates under vintage analysis

Totals may not sum precisely due to rounding

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Example 3: Vintage Method (cont.)

Step 3: Determine which historical loss period is a reasonable period on which to base the expected credit loss rate calculation

Origination		Charge-offs (%)					Remaining Lifetime Charge-offs (%)	Remaining Lifetime Charge-offs ($)
Amount	Date	Period 1	Period 2	Period 3	Period 4	Period 5		
$ 5,500	2015	0.04%	0.35%	0.25%	0.15%	0.04%	N/A	N/A
$ 5,000	2016	0.04%	0.70%	0.30%	0.16%	0.04%		
$ 3,500	2017	0.00%	0.50%	0.23%	0.15%	0.04%		
$ 3,100	2018	0.04%	0.45%	0.26%	0.15%	0.04%		
$ 3,100	2019	0.02%	0.50%	0.26%	0.15%	0.04%		
$ 2,940	2020	0.03%	0.50%	0.26%	0.15%	0.04%		
Average charge-off rate		0.03%	0.50%	0.26%	0.15%	0.04%		

($ in thousands)

Totals may not sum precisely due to rounding

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Example 3: Vintage Method (cont.)

Step 4: Compute allowance for credit losses: A x B = C

A **B** **C = A x B**

Origination		Charge-offs (%)					Remaining Lifetime Charge-offs (%)	Remaining Lifetime Charge-offs ($)
Amount	Date	Period 1	Period 2	Period 3	Period 4	Period 5		
$ 5,500	2015	0.04%	0.35%	0.25%	0.15%	0.04%	N/A	N/A
$ 5,000	2016	0.04%	0.70%	0.30%	0.16%	**0.04%**	**0.04%**	$ **2**
$ 3,500	2017	0.00%	0.50%	0.23%	**0.15%**	**0.04%**	**0.19%**	$ **7**
$ 3,100	2018	0.04%	0.45%	**0.26%**	**0.15%**	**0.04%**	**0.45%**	$ **14**
$ 3,100	2019	0.02%	**0.50%**	**0.26%**	**0.15%**	**0.04%**	**0.95%**	$ **30**
$ 2,940	2020	**0.03%**	**0.50%**	**0.26%**	**0.15%**	**0.04%**	**0.98%**	$ **29**

Unadjusted lifetime historical charge-offs	$ 81	D = sum of C
2020 Amort cost	10,000	E
Unadjusted lifetime historical charge-off rate	0.81%	D/E
Qualitative adjustments	0.25%	
Total allowance for credit losses rate as of 2020	1.06%	F
Total allowance of credit losses as of 2020	$ 106	E x F

($ in thousands)

Totals may not sum precisely due to rounding

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Key Reminders

- All loss rate methods shown today illustrate a ***starting point***. Management must make necessary ***adjustments*** and holistically evaluate the overall result to determine the final allowance for credit losses.
- This presentation does ***not*** provide a complete list of loss rate methods.
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- ***There is no one method that is appropriate for every portfolio.***

Common Challenge for All Loss Rate Methods

- Significant adjustments are necessary when:
  - Losses are minimal
  - Losses are sporadic with no predictive patterns
  - There is a low number of loans in each pool
  - Data is only available for a short historical period
  - Today's portfolio composition varies significantly from historical portfolios
  - There are changes in economic environment (e.g., available historical data is from a recessionary period, but today's environment is mid-expansionary period)

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Important Considerations Regarding Data

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Data Needs and Sources

- CECL allowances are based on “lifetime loan losses”
- Measure CECL allowances using relevant data about past events, including historical loss experience, current conditions, and reasonable and supportable forecasts
- Data availability is a factor to consider when selecting estimation method(s)
- Systems/operations and third party vendors
- Don’t wait! Begin now!

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Data in Today's Loss Rate Examples

- Unique loan identifier (i.e., account or loan number, borrower number)
- Loan product type
- Origination date
- Origination amount
- Maturity date
- Portfolio segmentation identifier
- Beginning and ending balances of a portfolio segment
- Periodic & cumulative charge-off & recovery amounts by date and unique loan identifier
- Paydown by unique loan identifier (scheduled payment and prepayments)

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Additional Relevant Data

- Collateral/asset type
- Performance status (i.e., current, past due, reperforming)
- Other relevant credit risk metrics (e.g., LTV, credit scores, geographic location)
- Renewal and/or modification date
- Credit quality risk tracking
- Any data necessary to make current conditions and reasonable & supportable forecast adjustments

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Understanding Your Starting Point, Process, and Controls

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Understand your Starting Point

- CECL's Objective is to report Management's best estimate of losses as of the reporting date
- No single required method to determine expected losses
- Understanding the data used and model selected is key

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Processes and Controls

- Judgment will be necessary to develop, document, and apply a systematic methodology for determining an estimate of current expected credit losses
- Existing procedural discipline is a useful starting point

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Processes and Controls

- Continued applicability of Commission guidance including SAB 102 (parallel guidance to the 2001 Interagency Policy Statement on the allowance)
- Existing guidance directs registrants to ensure methodologies:
  - Include a detailed analysis of the loan portfolio;
  - Consider all known relevant factors affecting collectibility;
  - Are applied consistently but modified when appropriate;
  - Be well documented, in writing, with clear explanations of the supporting analyses and rationale.
- SEC OCA is available and welcomes consultation

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Where Do We Go from Here?

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First Steps: Done!

- Get familiar and get started!!
  - Review the Accounting Standards Update 2016-13, Topic 326, Financial Instruments--Credit Losses. Core CECL guidance can be found on pages 101 through 123 of the ASU.
  - Review the Joint Statement on the New Accounting Standard (ASU) on Financial Instruments--Credit Losses from June 17, 2016 and the Interagency FAQs.
  - Create a cross-functional CECL team and a CECL project plan
  - Listen to today's webinar!!

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Next steps:

- An institution should internally discuss methods presented during today's webinar:
  - Do any of the methods presented today seem feasible?
  - Review the existing allowance for loan and lease losses methodology and compare to today's examples – is there a method that best aligns with your existing process?
  - Do you have the appropriate data to support any of these methods?
- An institution should consult your auditors and/or regulators on your discussions and plans

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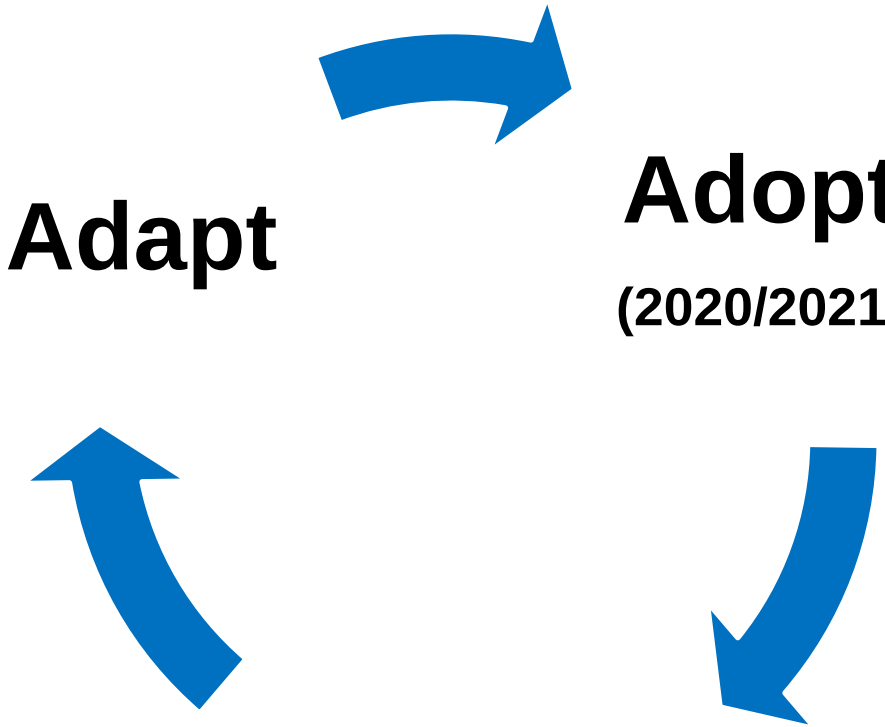
Adopt and Adapt!!



Must always be GAAP compliant!!

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Closing Remarks

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Resources (hyperlinks embedded)

- **FASB Resources**
  - FASB CECL Standard (core guidance p.101-123)
  - Transition Resource Group (TRG)
  - TRG – Meeting Materials
- **Interagency Guidance**
  - "Interagency Guidance on the New Accounting Standard on Financial Instruments – Credit Losses"
  - "Frequently Asked Questions on the Current Expected Credit Losses Methodology (CECL)"
- **Federal Reserve Resources (webinars)**
  - CECL Update: Frequently Asked Questions, October 3, 2017
  - Conversations with Industry Experts: Financial Accounting Standards Board (FASB) on Current Expected Credit Loss (CECL), July 28, 2016
  - Current Expected Credit Loss (CECL) Update: Current Supervisory Views, October 5, 2016
- **FDIC Resources**
- **CSBS Resources**
- **AICPA Accounting for Credit Losses Resources**

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Acronyms

- **AICPA –** American Institute of Certified Public Accountants
- **CECL –** Current Expected Credit Loss
- **CRE –** Commercial Real Estate
- **CSBS –** Conference of State Bank Supervisors
- **FASB –** Financial Accounting Standards Board
- **FDIC –** Federal Deposit Insurance Corporation
- **FRB –** Board of Governors of the Federal Reserve System
- **GAAP –** Generally Accepted Accounting Principles
- **LTV –** Loan to Value
- **OCA –** Office of the Chief Accountant
- **PD/LGD –** Probability of Default/Loss Given Default
- **SAB –** Staff Accounting Bulletin
- **SEC –** U.S. Securities and Exchange Commission

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To ask a question:

- **Email your question to: rapid@stls.frb.org**
- **Use the "Ask Question" button in the webinar tool**

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Thanks for joining us.