



***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**



## Welcome everyone

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



## 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



## 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



## 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

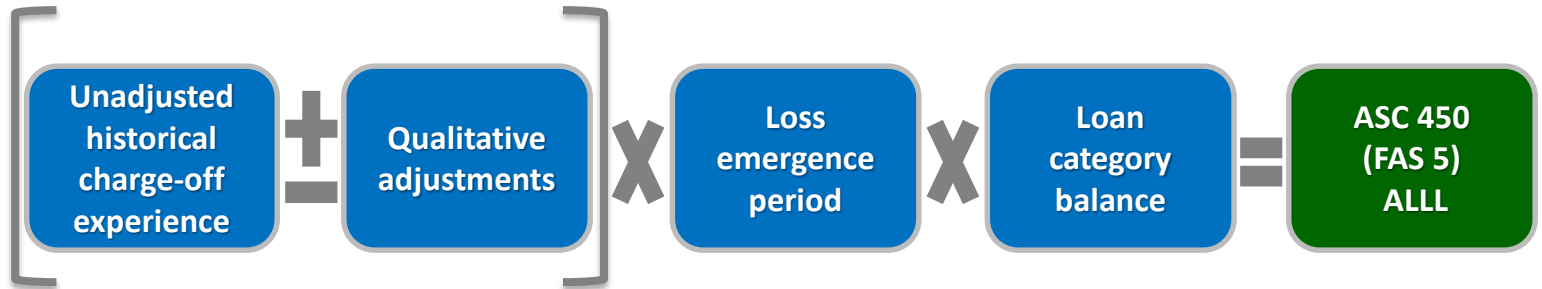


# Loss Rate Methods



# Loss Rate Methods – Today

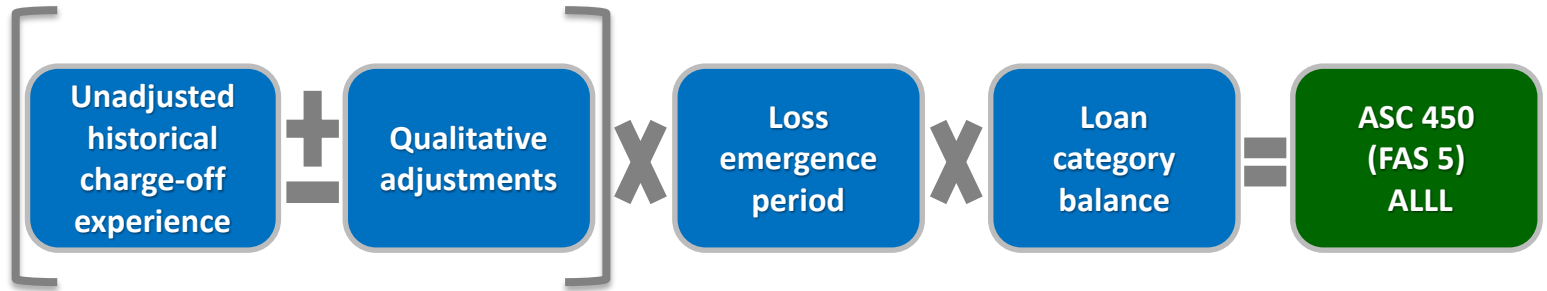
## Current U.S. GAAP



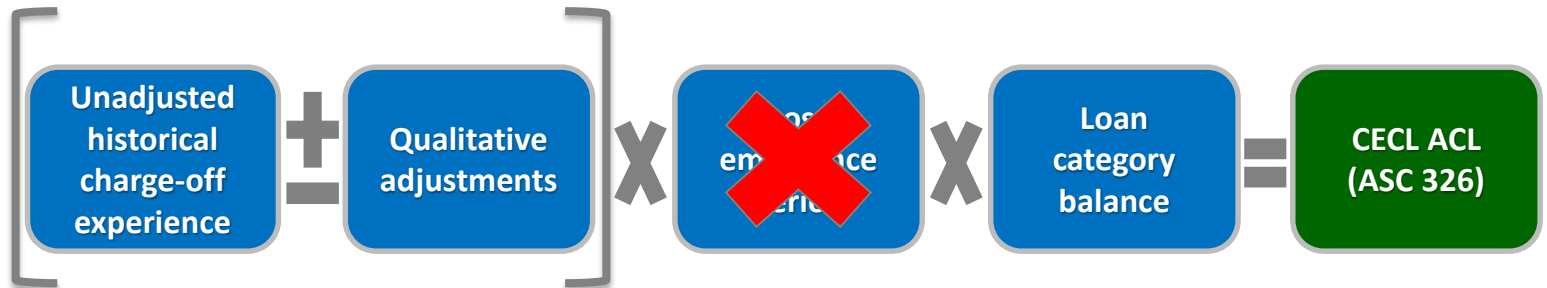


# Loss Rate Methods – Today & Future

## Current U.S. GAAP



## CECL

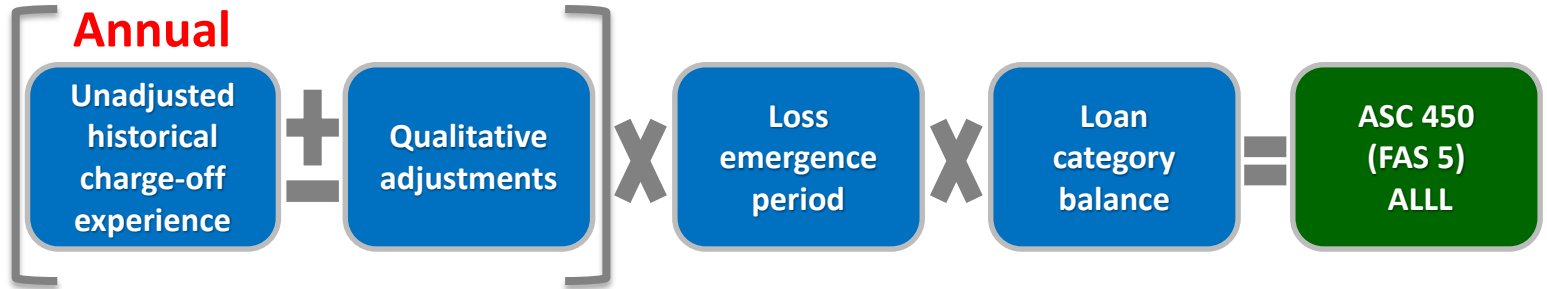




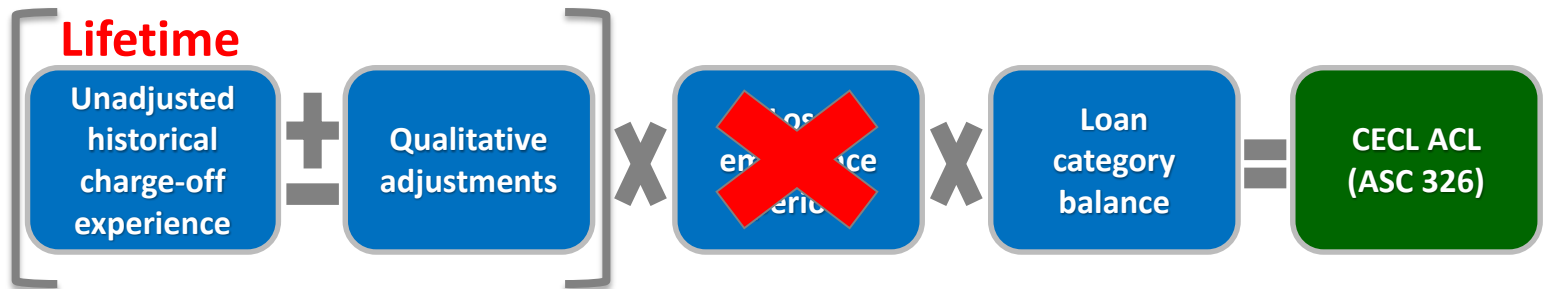


# Loss Rate Methods – Today & Future

## Current U.S. GAAP



## CECL



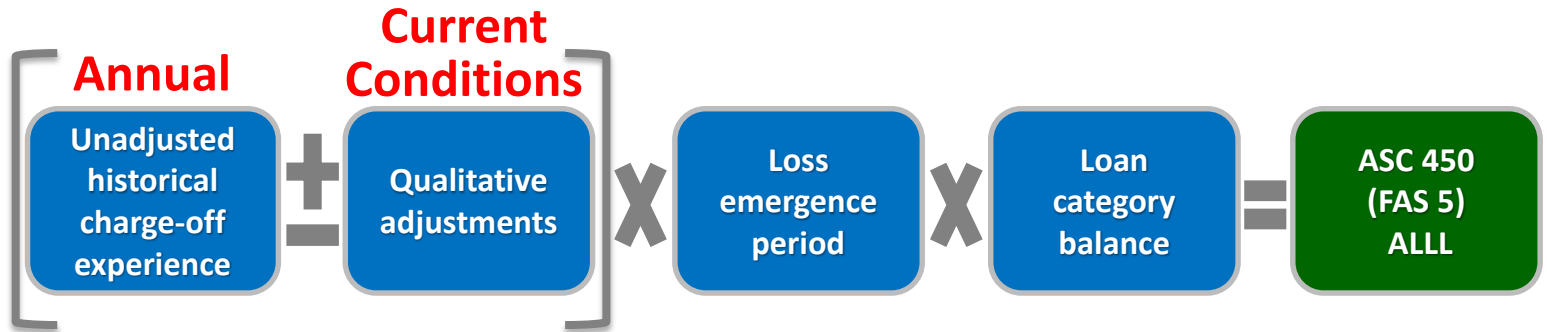


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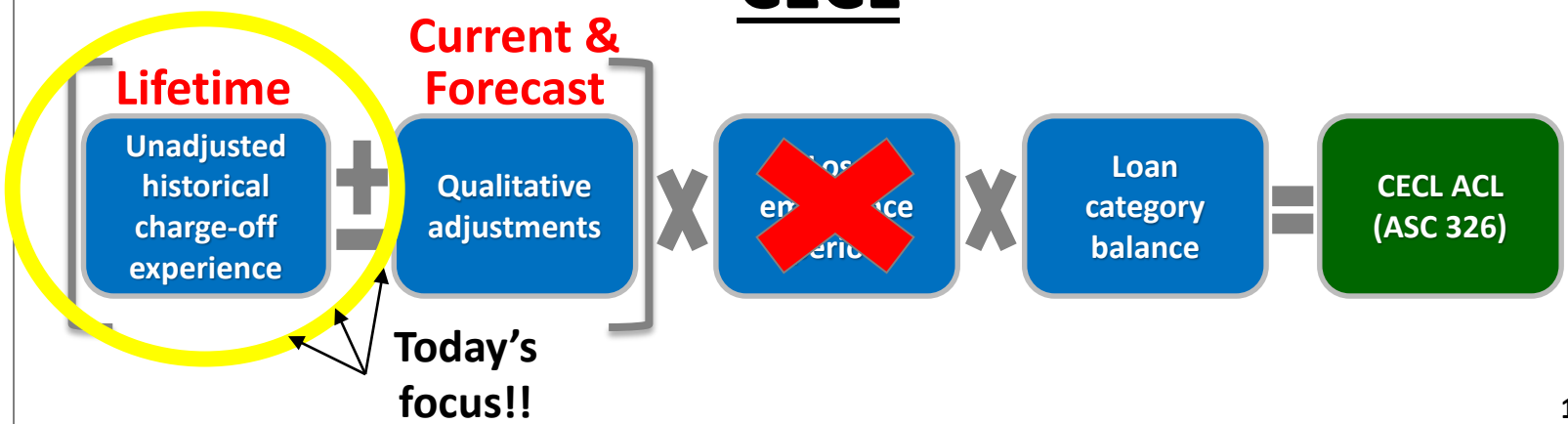
CSBS

# Loss Rate Methods – Today & Future

## Current U.S. GAAP



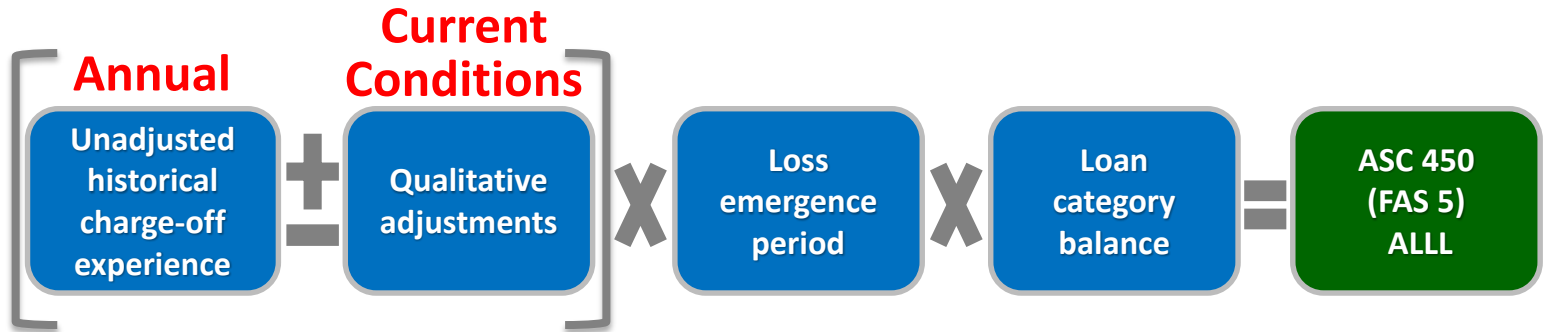
## CECL



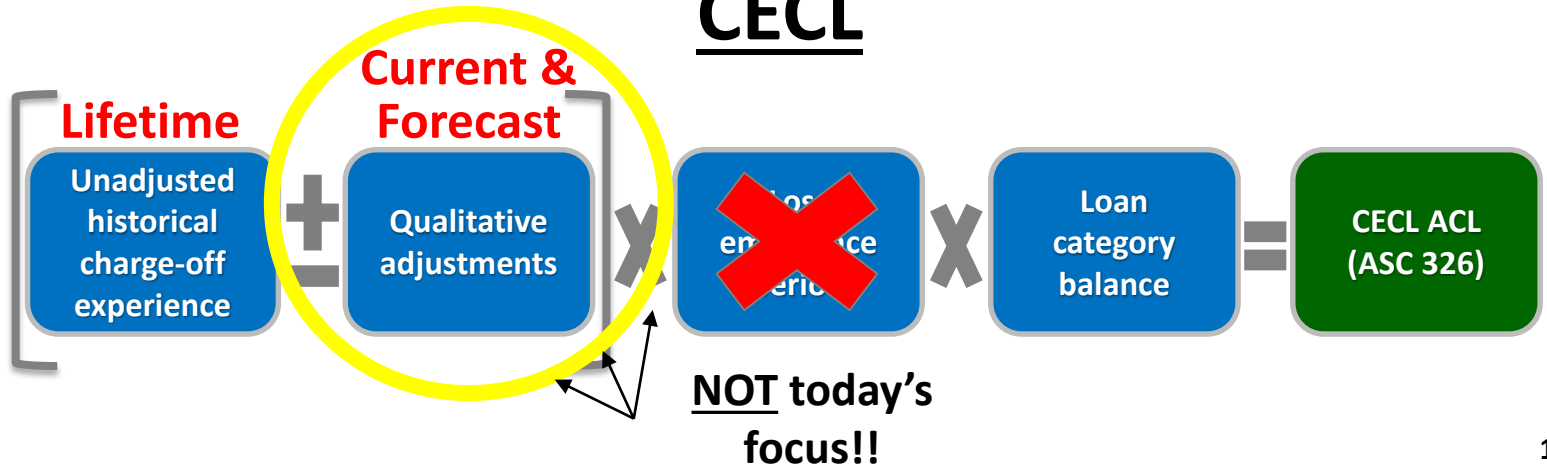


# Loss Rate Methods – Today & Future

## Current U.S. GAAP



## CECL





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## Refresher: Incurred Loss Calculation

Year End	Amortized Cost	A	Average Balance	B	Annual Net Charge-offs	C = B / A	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)



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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.***

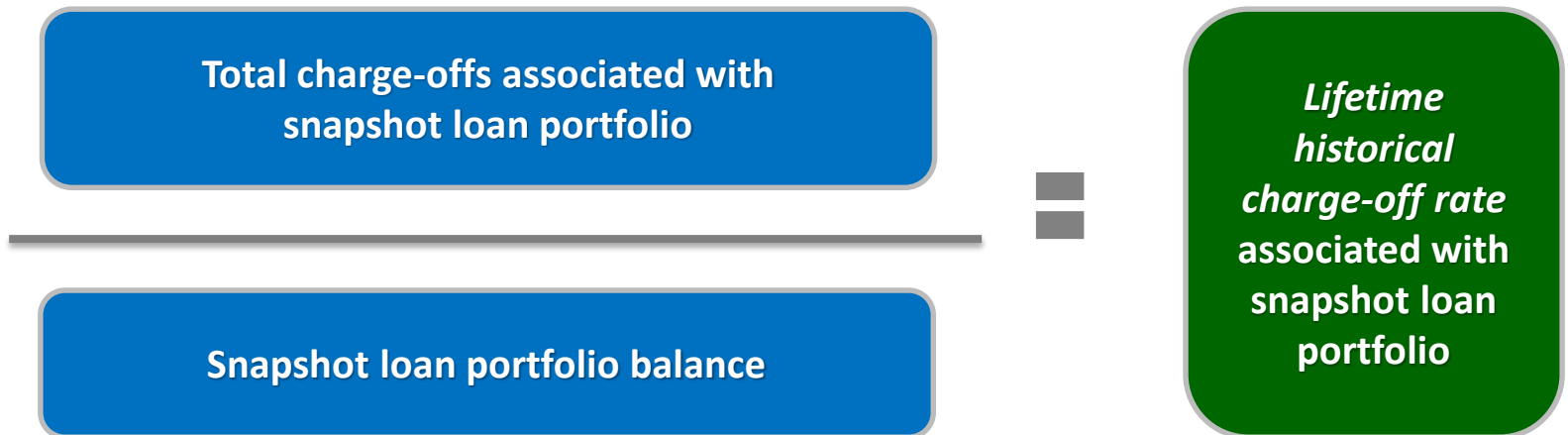


# Loss Rate Methods: Snapshot/Open Pool Method



# 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





## 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





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

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

(\$ in thousands)



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

Year End	Amortized Cost	Charge-offs Associated with 2015 Snapshot Balance
<b>2015</b>	<b>\$ 9,350</b>	
2016	<del>9,398</del>	\$ 32
2017	<del>10,779</del>	32
2018	<del>11,750</del>	14
2019	<del>10,738</del>	9
2020	<del>10,000</del>	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)

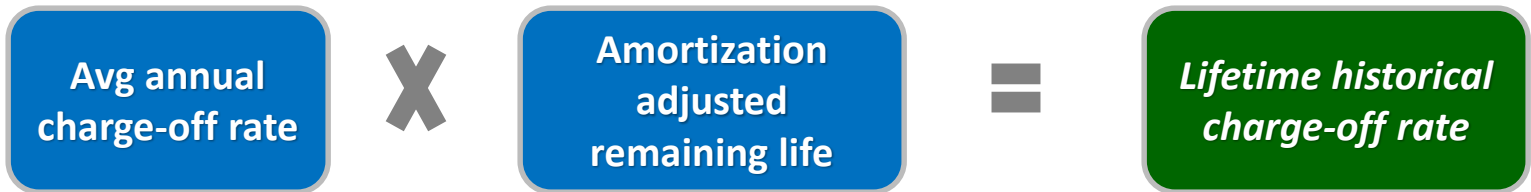


# Loss Rate Methods: Remaining Life Method



# 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





## 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:
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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%



## Example 2: Remaining Life Method (cont.)

### Step 2: Calculation Option 1

Year End	<i>Est. Paydown</i>	A Projected Amort Cost	B Avg Annual Charge-off Rate	A*B Allowance for Credit Losses
	<i>2020 Actual Amortized Cost</i>	<i>10,000</i>		
2021	<i>3,849</i>	6,151	0.36%	36
2022	<i>2,528</i>	3,623	0.36%	22
2023	<i>1,828</i>	1,796	0.36%	13
2024	<i>1,208</i>	588	0.36%	7
2025	<i>588</i>	-	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)



## Example 2: Remaining Life Method (cont.)

### Step 2: Calculation Option 2

(\$ in thousands)

Year End	<i>Est. Paydown</i>	Projected Amort Cost	Remg Life
	<i>2020 Actual Amortized Cost</i>	<b>10,000</b>	1.00
2021	<b>3,849</b>	6,151	2.00
2022	<b>2,528</b>	3,623	3.00
2023	<b>1,828</b>	1,796	4.00
2024	<b>1,208</b>	588	5.00
2025	<b>588</b>	-	
Weighted avg amortization adjusted remaining life			2.22 <sup>A</sup>
Average annual charge-off rate			0.36% <sup>B</sup>
Unadjusted lifetime historical charge-off rate			0.80% <sup>A * B</sup>
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***





## 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:	
<b>2020 Amort Cost</b>	<b>10,000</b>	<b>A</b>		
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**



# Loss Rate Methods: Vintage Method



# 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





## 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)



# 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**



# 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	Remaining Lifetime
Amount	Date	Period 1	Period 2	Period 3	Period 4	Period 5	Charge-offs (%)	Charge-offs (\$)
\$ 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%		

(\$ in thousands)

**Average charge-off rate    0.03%    0.50%    0.26%    0.15%    0.04%**



# Example 3: Vintage Method (cont.)

Step 4: Compute allowance for credit losses:  $A \times B = C$

**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%	<b>0.04%</b>	<b>0.04%</b>	\$ 2
\$ 3,500	2017	0.00%	0.50%	0.23%	<b>0.15%</b>	<b>0.04%</b>	<b>0.19%</b>	\$ 7
\$ 3,100	2018	0.04%	0.45%	<b>0.26%</b>	<b>0.15%</b>	<b>0.04%</b>	<b>0.45%</b>	\$ 14
\$ 3,100	2019	0.02%	<b>0.50%</b>	<b>0.26%</b>	<b>0.15%</b>	<b>0.04%</b>	<b>0.95%</b>	\$ 30
\$ 2,940	2020	<b>0.03%</b>	<b>0.50%</b>	<b>0.26%</b>	<b>0.15%</b>	<b>0.04%</b>	<b>0.98%</b>	\$ 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



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- 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.
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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)



# Important Considerations Regarding Data



## 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!



## 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)



## 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



# Understanding Your Starting Point, Process, and Controls



# 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





## 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



## 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

# ask the Regulators



# 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:



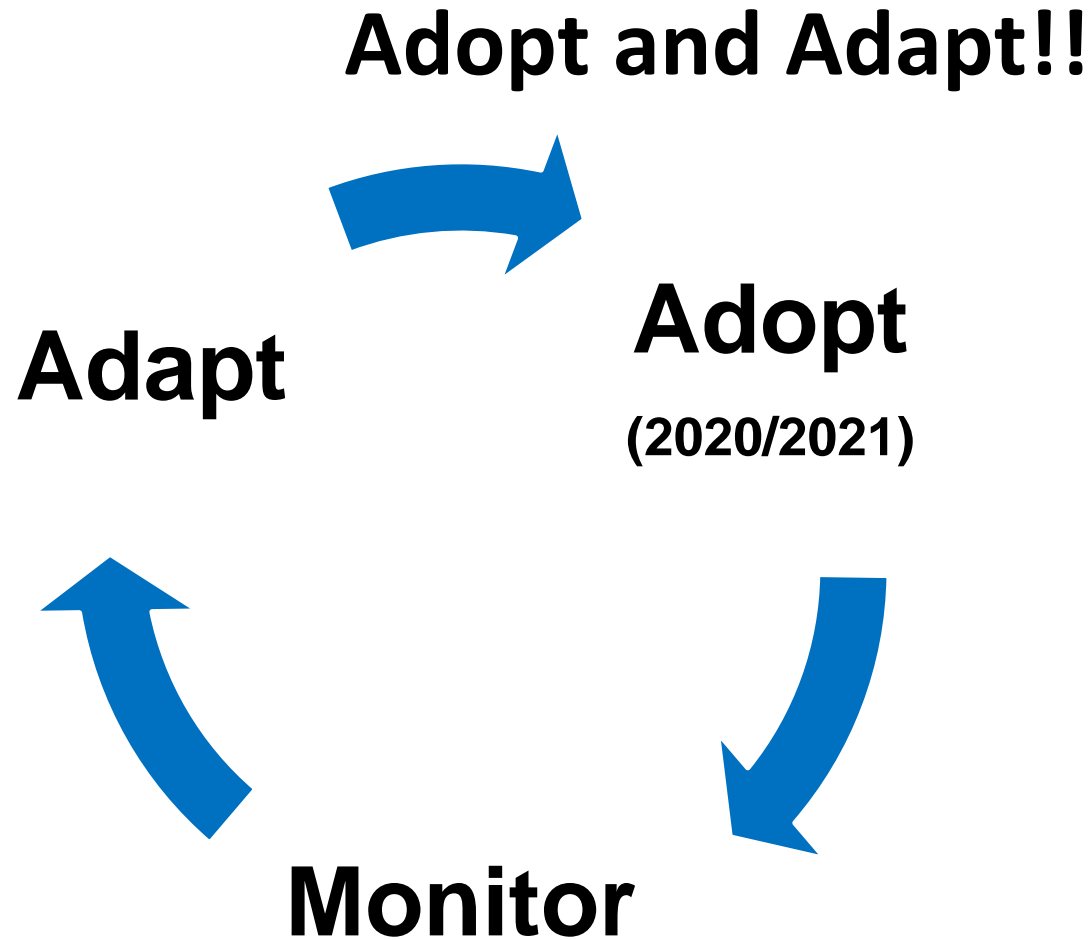
- An institution should internally discuss methods presented during today's webinar:
  - Do any of the methods presented today seem feasible?
  - Review the existing allowance for loan and lease losses methodology and compare to today's examples – is there a method that best aligns with your existing 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

# ask the Regulators



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**Must always be GAAP compliant!!**



# 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](#)**



## 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



## To ask a question:

- Email your question to: [rapid@stls.frb.org](mailto:rapid@stls.frb.org)
- Use the “Ask Question” button in the webinar tool



**Thanks for joining us.**

