CECL & Credit Risk Modeling Summit

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Disclaimer

The opinions expressed in this presentation are intended for informational purposes and are not formal opinions of, nor binding on, the Board of Governors of the Federal Reserve System

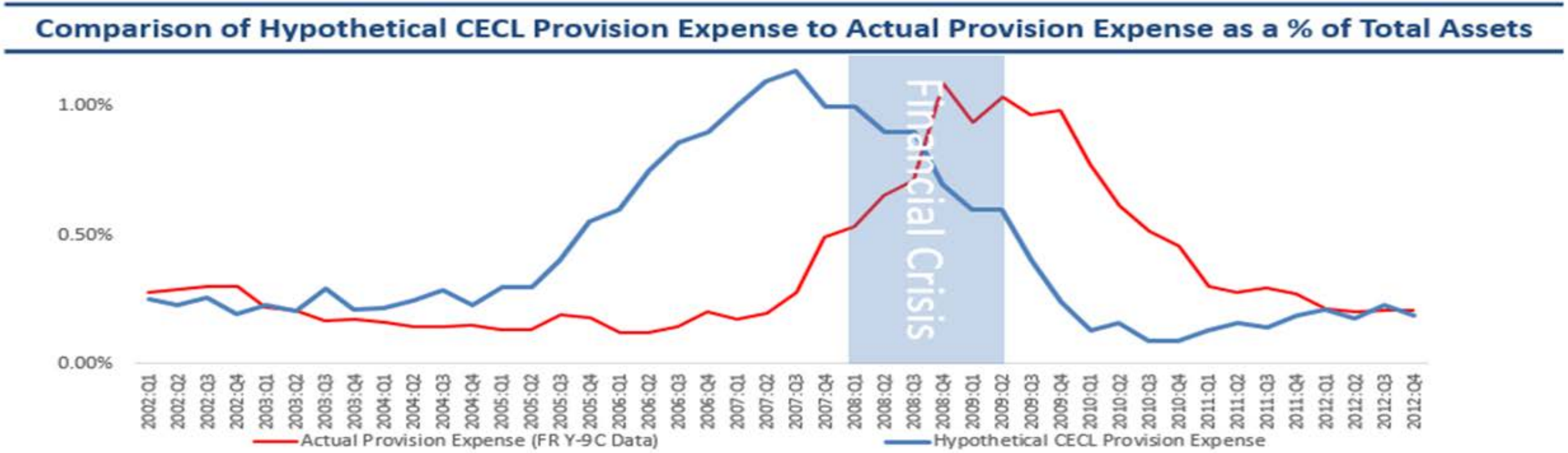
Polling Question #1

- **How do you rate your CECL knowledge?**

1. I know a lot – I've followed the issue closely
2. More than the average banker/examiner
3. I know the basic principles, but not much beyond that
4. I've heard of CECL, but don't know much about it
5. CECL? What's CECL?

Why CECL?

- Today's accounting results in reduction in earnings (via increased provision expense) during the height of the 2007-2008 financial crisis – when banks' earnings and capital were most stressed
- CECL was issued to address this "too little too late" concern
- Under CECL, allowance should begin to build up before the height of economic crisis



Effect of Issuing CECL

By issuing CECL, FASB:

- **Removed “probable” threshold and “incurred” notion as triggers**
- **Requires financial instruments carried at amortized cost to reflect net amount expected to be collected**
- **Broadened range of data incorporated into measurement of credit losses to include forward-looking information**
- **Introduced single measurement objective for assets carried at amortized cost**

CECL is … easy as A B C

- A valuation account
- Deducted from amortized cost basis of financial assets
- Used to present “net amount expected to be collected”
- Changes flow through net income

$$A - B = C$$

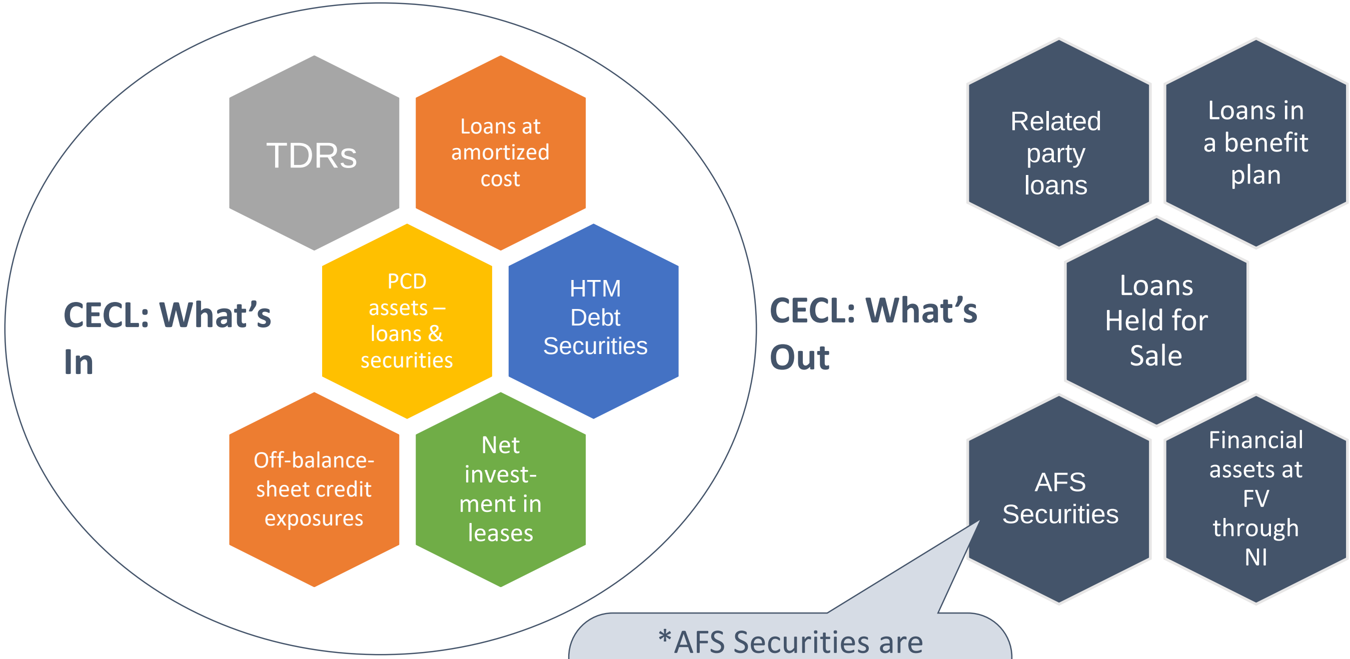
Amortized cost . . .
unpaid principal balance (UPB) lent to a customer adjusted for accrued interest, loan fees and origination expenses, repayments, writeoffs, nonaccrual practices, and certain hedging transactions

Amount expected to be Collected. . .
remaining amounts expected to be collected from each loan

Three Key Differences

	Current US GAAP	CECL
When are Losses Recognized?	When it is **"probable"** a loss has been **"incurred"** (+ four other models)	**No** recognition **threshold**, current expectations are updated at each reporting date
How Much Loss is Recognized?	Recognize the amount of loss that has already been **incurred**	Recognize an allowance to reduce the net carrying value to the amount **expected to be collected**
What Information is Used in Determining Loss?	• Past events • Current conditions	• Past events • Current conditions • Reasonable & supportable expectations about **future**

Scope



*AFS Securities are outside of the scope of CECL, although targeted changes to the existing model were made within the standard.

Effective Dates for CECL

Entity Type	U.S. GAAP Effective Date	Call Report Effective Date*
Public Business Entities (PBEs) that are SEC Filers	Fiscal years beginning after 15 December 2019, including interim periods within those fiscal years	**Q1 2020 (31 March 2020)**
Other PBEs (Non-SEC Filers)	Fiscal years beginning after 15 December 2020, including interim periods within those fiscal years	**Q1 2021 (31 March 2021)**
Non-PBEs **UPDATE:**	~~Fiscal years beginning after 15 December 2020, including interim periods beginning after 15 December 2021~~ FASB issued ASU 2018-19 to change effective dates for Non-PBEs to be fiscal years beginning after 15 December 2021, including interim periods within those fiscal years	~~**Q4 2021 (31 Dec. 2021)**~~ **Q1 2022 (31 Dec. 2022)**
Early Application	Permitted for fiscal years beginning after 15 December 2018, including interim periods within those fiscal years	**No earlier than 31 March 2019**

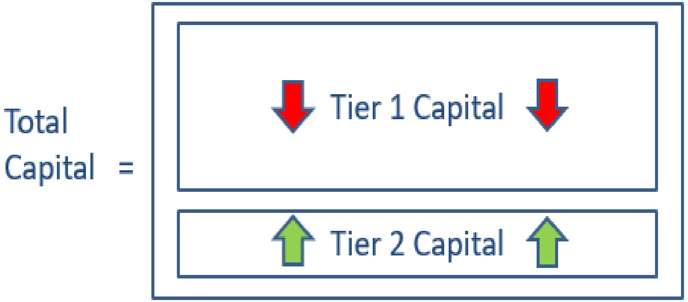
Transition Guidance

CECL
Adoption
Adjustment

Impact to Regulatory Capital Ratios

Effect on regulatory capital (numerator)

- An increase in the allowance reduces a firm's retained earnings, a main component of tier 1 capital
- A limited amount of the allowance can be included in the firm's tier 2 capital ("tier 2 add back")



Effect on risk-weighted assets (denominator)

- Generally, there is no effect on risk-weighted assets as exposures are typically risk-weighted gross of a firm's allowance

CECL Transition Rule: Provides firms with optional three year transition

Example: Transitional Adjustment Amount Equals $300

Decrease in CET1 Capital = $300	Year 1: 75% add-back to CET1				Year 2: 50% add-back to CET1				Year 3: 25% add-back to CET1				Year 4: CECL is Fully Phased In
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	$225	$225	$225	$225	$150	$150	$150	$150	$75	$75	$75	$75	

Polling Question #2

- **How far along are you on your CECL implementation?**

1. **Doing a calculation – data and method are done**
2. **On the data/method roundabout**
3. **In process - assembled a team and developed a plan**
4. **Aware of CECL and talking about it, but no action yet**
5. **Have not started**

Loss Rate Methods: Today vs. CECL

Current U.S. GAAP

[Annual: Unadjusted historical charge-off experience ± Current Conditions: Qualitative adjustments] X Loss emergence period X Loan category balance = ASC 450 (FAS 5) ALLL

CECL

[Lifetime: Unadjusted historical charge-off experience ± Current & Forecast: Qualitative adjustments] X ~~Loss emergence period~~ X Loan category balance = CECL ACL (ASC 326)

Weighted-Average Remaining Maturity (WARM) Method

Avg annual charge-off rate X **Amortization adjusted remaining life** = ***Lifetime historical charge-off rate***

- Ask the Regulators webinar: Practical Examples of How Smaller, Less Complex Community Banks Can Implement CECL - February 2018
    - Remaining Life method (also known as WARM) was illustrated on the webinar

- FASB issued Staff Q&A on WARM method – January 2019

WARM 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 approximately $13.98 million
  - 5-year financial assets (contractual term adjusted by prepayments)
- Management expects the following in 2021 and 2022:
  - Rise in unemployment
- Management cannot reasonably forecast beyond 2022
- Assume 0.25% qualitative adjustment to represent both current conditions and reasonable & supportable forecasts

WARM Example (Continued)

Step 1: Calculate annual charge-off rate

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%**

Totals may not sum precisely due to rounding

WARM Example (Continued)

Step 2: Method 1 – Estimate the Allowance for Credit Losses

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
Paydown & amortized cost balances in thousands				
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**

Totals may not sum precisely due to rounding

WARM Example (Continued)

Step 2: Method 2 - Formula for Weighted Average Amortization Adjusted Contractual Life

Table 4: Weighted Average Determination					
		B	C	D = BxC	D/A
	Year End	Est. Paydown	Remg Life	Alternative:	
2020 Amort Cost		13,980	A		
	2021	$ 3,700	1.00	$ 3,700	0.26
	2022	3,900	2.00	7,800	0.56
	2023	3,000	3.00	9,000	0.64
	2024	2,160	4.00	8,640	0.62
	2025	1,220	5.00	6,100	0.44
Paydown balances in thousands					
			2.52	Sum	2.52

Excel Formula:

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

WARM Example (Continued)

Step 2: Method 2 – Estimate the Allowance for Credit Losses

Table 3: Estimated Amortized Cost Basis					
	Year End	**Est. Paydown**	**Projected Amort Cost**	**Remg Life**	
	2020 Actual Amortized Cost		13,980	1.00	
	2021	$ 3,700	$ 10,280	2.00	
	2022	3,900	6,380	3.00	
	2023	3,000	3,380	4.00	
	2024	2,160	1,220	5.00	
	2025	1,220	-		
Weighted avg amortization adjusted remaining life				2.52	**A**
Paydown & amortized cost balances in thousands					
Average annual charge-off rate				**0.36%**	**B**
Unadjusted historical charge-off rate for remaining balance				0.90%	**A * B**
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**	

Totals may not sum precisely due to rounding

Interagency Initiatives

Policy Setting

- Joint Statement
- Frequently Asked Questions
- Next: Updating Policy Statements and Guidance

Communication

- FFIEC examiner training
- Agency-specific examiner training and resources
- Cross-functional CECL Implementation teams

External Outreach

- Bankers
- Service Providers
- Auditors

CECL Resources

- 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)"
- Interagency "Ask the Regulators" webinars
  - CECL Questions and Answers for Community Institutions, July 30, 2018
  - Practical Examples of How Smaller, Less Complex Community Banks Can Implement CECL, February 27, 2018
- 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
- AICPA Accounting for Credit Losses Resources

*Please note: To access these hyperlinks, please download a copy of the presentation.

Questions