

Will You Be Ready For CECL?



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Will You Be Ready For CECL?

- CECL Reminders
- Look at Some Methodologies
- Implementation Challenges
- Developing an Action Plan
- Will You Be Ready for CECL?
- Questions



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CECL Reminders

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CECL Reminders

Institution Type	Effective Date – Annual Periods Beginning After:	Effective Date for Calendar Year-Ends
“Large” public business entities (SEC filers)	12/15/2019 (and interim periods <u>within</u> the first year)	1 st quarter of 2020
“Small” public business entities (non-SEC)	12/15/2020 (and interim periods <u>within</u> the first year)	1 st quarter of 2021
All other entities	12/15/2020 (and interim periods <u>after</u> the first year)	4 th quarter of 2021

- Transition – Cumulative effect adjustment to retained earnings as of the beginning of the year



CECL Reminders

- Two Financial Instrument Impairment Models

Model	Applies To	Example
CECL	Financial assets measured at amortized cost	Loans Debt securities HTM
Modified OTTI	Financial assets measured at fair value with changes in fair value recognized in OCI	Debt securities AFS

- A model is not required for financial assets measured at fair value with changes in fair value recognized in net income (e.g., equity securities) since impairment will already be recognized in net income



CECL Reminders

- The measurement of expected credit losses is based on **relevant information** about past events, including historical experience, current conditions, and reasonable and supportable forecasts
 - ***Pool analysis*** – Loans that share similar risk characteristics will be evaluated on a collective basis
 - ***Individual analysis*** – Loans that do not share similar risk characteristics will be evaluated individually
 - Different methodologies may be used by different institutions and for different loans within an institution



CECL Reminders

- Purchased credit deteriorated (PCD) loans
 - New definition: “More than an insignificant deterioration in credit quality since origination”
 - Credit-related discounts will be recognized as an ALL at acquisition
- Purchased performing loans
 - No ALL at acquisition (same as current treatment)
 - Record ALL after acquisition using CECL (“Day 2” hit to earnings and capital)



CECL Reminders

	PCD Loans	Performing Loans
Day 1		
Loans	1,000,000	1,000,000
Discount	(25,000)	(75,000)
ALL	(50,000)	0
Cash	(925,000)	(925,000)
Day 2		
Provision for loan losses		50,000
ALL		(50,000)





A Look at Some Methodologies

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A Look at Some Methodologies

- Available Methodologies (not all inclusive)
 - Loss rate analysis
 - Vintage analysis
 - Migration analysis
 - Probability-of-default methods
 - Discounted cash flows



A Look at Some Methodologies

- Which methodology(ies) should we use?
 - No one right answer
 - Institutions may use different methodologies for different loans
 - Could even change over time
 - Each methodology has pros and cons
 - Still need to consider qualitative adjustments for each methodology
 - Let's look at some examples...



Another Disclaimer...

The CECL methodology examples discussed in the following slides are provided to demonstrate, at a high level, how a CECL methodology could be developed and report useful information to help you estimate expected lifetime loan losses. **These are NOT meant to represent the only way or even the best way to estimate loan losses in accordance with CECL.** These are meant to help you see how a CECL methodology can give you a starting point to estimating lifetime loan losses.



Loss Rate Analysis

- Based on FASB Example #1 (Uses Real Data)
 - As of date: 12/31/2016
 - Pool of residential real estate balloon loans
 - \$234 million
 - Maximum maturity of 4 years
 - Loans were originated (or renewed) over the period 12/31/2012 to 12/31/2016
 - For reference, current ALL = \$475,000 (0.20%)



Loss Rate Analysis

Year	Portfolio Balance (000s)	Annual Losses (000s)	Annual Loss Rate	2012 Loan Losses (000s)
2012	120,000			
2013	138,000	2,397	1.86%	2,377
2014	157,000	427	0.29%	414
2015	190,000	367	0.21%	145
2016	234,000	173	0.08%	42
				2,978



Loss Rate Analysis

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				2,978



Loss Rate Analysis

- Historical lifetime loss rate =
 - $2,978 / 120,000 = 2.48\%$
- Base CECL ALL =
 - $2.48\% \times \$234 \text{ million} = \$5,803,000$
 - Current ALL = \$475,000 (0.20%) - 1,200% increase!!!
- Significant qualitative analysis and Q factor adjustments will be required in this analysis
 - The challenge will be supporting Q factor adjustments



Loss Rate Analysis

Data Point	Loss Rate		
Total loan principal balance for current and various historical reporting dates	X		
Loan losses and recoveries by date	X		
Loan origination date for loans with losses (and/or recoveries)	X		



Loss Rate Analysis

Pros	Cons
The simplest method	May need to disaggregate pools by maturity
Least amount of data needed	Need to carefully consider changes to risk characteristics of portfolio
	Greater analysis required for Q factors
	Likely results in a higher estimate than other methods



Vintage Analysis

- Current process:
 - 2013 losses (\$2,397,000) / average balance of loan pool (\$129 million) = loss rate (1.86%)
- Add one more data point: Year loan was originated
 - 2013 losses on loans originated in 2012 (\$103,000) / loans originated in 2012 (\$31 million) = vintage loss rate (0.33%)



Vintage Analysis

Year of Origination	Losses by Year After Origination				
	Year 1	Year 2	Year 3	Year 4	Total
2012	0.33%	0.00%	0.00%	0.00%	0.33%
2013	0.03%	0.00%	0.00%		
2014	0.16%	0.10%			
2015	0.21%				
2016					



Vintage Analysis

Year of Origination	Losses by Year After Origination				
	Year 1	Year 2	Year 3	Year 4	Total
2012	0.33%	0.00%	0.00%	0.00%	0.33%
2013	0.03%	0.00%	0.00%	??	
2014	0.16%	0.10%	??	??	
2015	0.21%	??	??	??	
2016	??	??	??	??	



Vintage Analysis

- Hopefully there is enough data over time to project losses for future periods
- If historical data isn't available or appropriate, may need to supplement with other data (e.g., peer data)
- Still need to consider Q factor adjustments for changes in current and expected future conditions



Vintage Analysis

- CECL loss estimate equals:
 - The sum of:
 - Original principal balance of each vintage x respective vintage loss rate
 - We estimated an ALL of \$946,000 (0.40%)
- Could create a database of the required vintage information and use a pivot table or similar database query to develop vintage table



Vintage Analysis

Data Point	Loss Rate	Vintage	
Total loan principal balance for current and various historical reporting dates	X		
Total loans originated during each vintage period		X	
Loan losses and recoveries by date	X	X	
Loan origination date for loans with losses (and/or recoveries)	X	X	
Database analysis (e.g., pivot table)		X	



Vintage Analysis

Pros	Cons
Level of precision increases	More data is required
Methodology is still fairly simple	Methodology is more involved than a loss rate methodology
Data should be readily available	Need to utilize a database technique (not as familiar)
Information can be used for public business entity disclosure requirement	Will likely result in a higher estimate than other methods



Migration Analysis

- Migration Analysis (Roll Rate Analysis)
 - Follow a pool of loans from origination or a specific date through changes in credit quality to final outcome
 - Similar to Loss Rate, but segregated by another variable
 - Could be used with:
 - Risk ratings
 - FICO scores
 - Defaults/past due status



Simplified Migration Analysis

Risk Rate	2012 Balance (000s)	Losses on 2012 Loans Outstanding				Lifetime Loss Rate	2016 Balance (000s)	CECL ALL (000s)
		2013 (000s)	2014 (000s)	2015 (000s)	2016 (000s)			
1	2,600	-	-	-	-	0.00%	3,300	-
2	17,600	-	-	-	-	0.00%	73,000	-
3	41,800	-	51	60	9	0.29%	85,400	245
4	34,400	71	13	26	15	0.36%	62,200	226
5	11,800	662	50	59	11	6.63%	3,400	225
6	7,700	1,644	300	-	-	25.25%	300	76
7	100	-	-	-	-	0.00%	-	-
NR	4,000	-	-	-	7	0.18%	6,400	11
Total	120,000	2,377	414	145	42	2.48%	234,000	783

- Base CECL estimate - \$783,000 (0.33%)



Migration Analysis

- More data will be required
 - Need more loan-specific information
 - Need to track and verify accuracy of the credit quality variable
 - Need to use some sort of database technique to efficiently analyze the data



Migration Analysis

Data Point	Loss Rate	Vintage	Migration
Total loan principal balance for current and various historical reporting dates	X		
Total loans originated during each vintage period		X	
Loan losses and recoveries by date	X	X	X
Loan origination date for loans with losses (and/or recoveries)	X	X	
Loan-specific information and history for all loans in the analysis			X
Initial risk factor (e.g., risk rating, FICO score) of each loan at the start of analysis and changes to the risk factor during its life			X
Database analysis (e.g., pivot table)		X	X



Migration Analysis

Pros	Cons
Level of precision increases	Even more data is required
May result in lower estimates since it is tailored based on risk	Need additional internal controls to monitor how additional data is accumulated/changed
May help estimate certain Q factors	Challenging analysis/ methodology



Probability of Default

- Probability of Default



- Exposure = expected balance (pmts/prepayments)
- 5% (PD) x 30% (LGD) x \$3 million (E) = \$45,000
- Often used by larger institutions
- Very precise, but very challenging



Probability of Default

Pros	Cons
Very precise	Very difficult to calculate PD and LGD (requires some statistical analysis)
Can incorporate Q factors directly into analysis	Likely to require software



Discounted Cash Flow Analysis

Pros	Cons
Works well for individual loan analysis	Very difficult to use for loan pools
Highest level of precision	Detailed cash flow information required
Only methodology that allows institutions to discount loss estimates (lower estimate)	





Implementation Challenges

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Using a Third-Party Model

- Should we purchase a CECL model?

Pros	Cons
Can be relatively easy to run	Significant investment (up front and ongoing)
Can take advantage of more precise methodologies	Greater model risk management
Can run “what if” scenarios	Vendor can’t do all the work
Can be run by multiple people	
Can provide support for Q factors and disclosures	



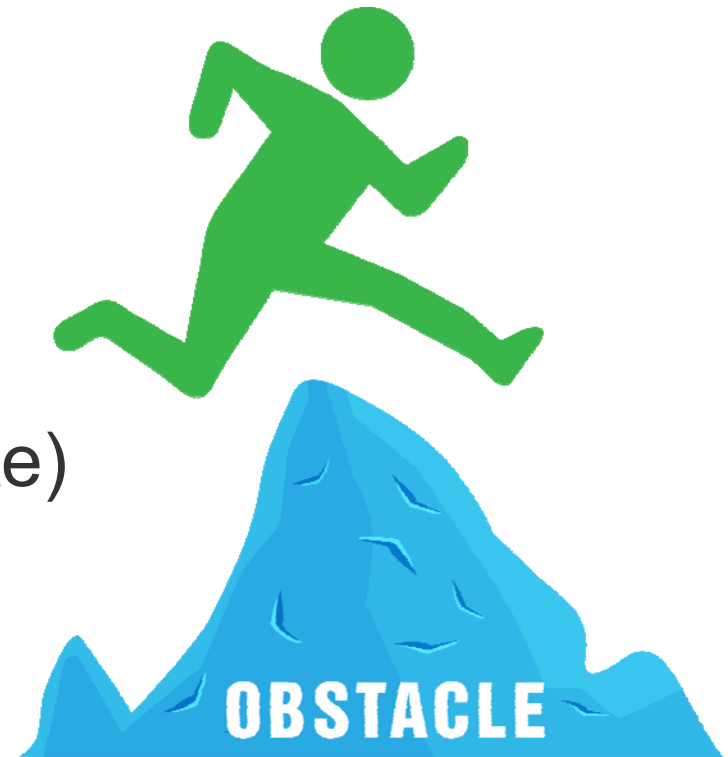
Selecting a Third-Party Model

- Factors to consider when selecting (or developing) a model:
 - Investment (cost)
 - Is it CECL compliant?
 - Will auditor/regulators accept it?
 - How will the vendor support it/we maintain it?
 - Ease of use/ease of connection to existing systems
 - Additional features that could be utilized



Implementation Challenges

- Accuracy of data
- Overwriting data
- Lines of credit/demand notes
- Loan renewals (origination date)
- Loan duration
- Qualitative factors
- Not enough data (statistically irrelevant)
- Forecasting





Developing an Action Plan

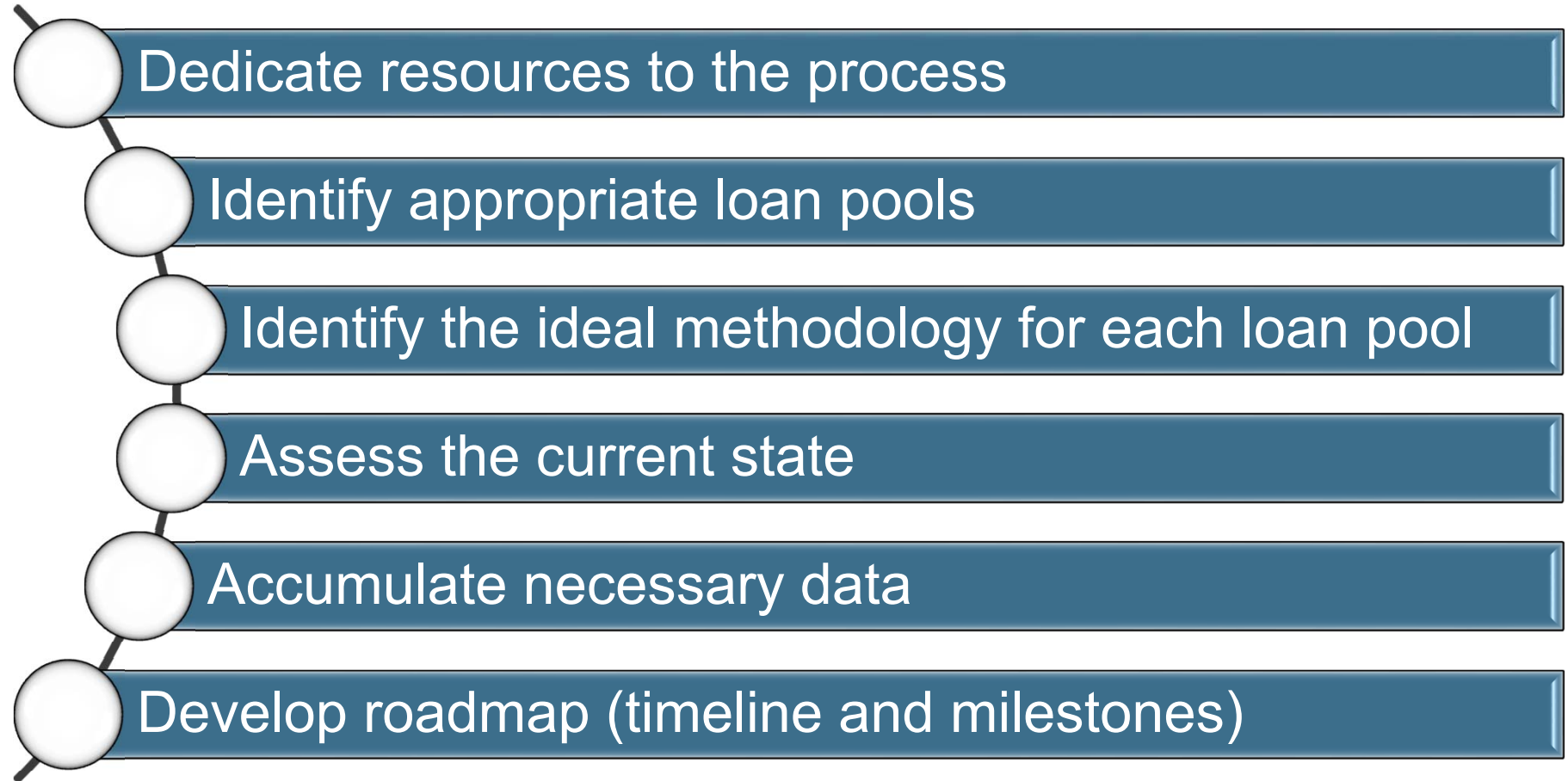
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Developing an Action Plan

- **This will be a significant change to your process**
- Don't panic!
- Start planning
- Don't stop just because you don't have all the answers
- The following are some high-level thoughts to help you develop an action plan



Developing an Action Plan



Developing an Action Plan

1) Dedicate resources to the process

- Decide who is going to ultimately own the process
- Decide who needs to be involved (various departments)
- Clear some schedules
- Consider some additional talent/help
- Necessary whether you end up with an internal or third-party methodology



Developing an Action Plan

2) Identify appropriate loan pools

- Loans that share similar risk characteristics
- Begin with existing pools
- Identify the risks and factors that drive loss within each pool, for example:
 - Unemployment
 - Collateral value
 - Interest rates
 - Economy



Developing an Action Plan

- 3) Identify the ideal methodology for each loan pool
 - Know that “ideal” does not necessarily mean most complex
 - Establish criteria for evaluating methodologies
 - CECL requirements
 - Best practices
 - Cost, practicability
 - Materiality
 - Identify data needs and analysis tools required for each methodology



Developing an Action Plan

4) Assess the current state

- Existing loss estimation methodologies
- Existing data accumulation and analysis
- Gap analysis – How do we get from here to there?
- Start developing a process to close the gap for each pool
 - Don't let issues for one pool impede progress for other pools
- Capital planning



Developing an Action Plan

5) Work with IT, core processor, and applicable departments to accumulate necessary data

- What data will be needed?
- Do we need to change internal processes/controls?
- How do we store/archive the data?
- How do we access the data?
- At a minimum, you will need some loan-specific information regarding origination and renewal dates, balances, charge-off amounts and dates, etc.



Data Needs for Different Methodologies

Data Point	Loss Rate	Vintage	Migration
Total loan principal balance for current and various historical reporting dates	X		
Total loans originated during each vintage period		X	
Loan losses and recoveries by date	X	X	X
Loan origination date for loans with losses (and/or recoveries)	X	X	
Loan-specific information and history for all loans in the analysis			X
Initial risk factor (e.g., risk rating, FICO score) of each loan at the start of analysis and changes to the risk factor during its life			X
Database analysis (e.g., pivot table)		X	X



Collecting Data

- Assessing Data Needs
 - Where can I find the data? How can I access it?
 - Is the data accurate? Is it protected?
 - Do I have the data I need for my methodology?
- Start With:
 - Loan trial balances
 - Regulatory downloads
 - Other sources (e.g., ALL activity on spreadsheets)



Developing an Action Plan

6) Develop roadmap (timeline and milestones)

- Example Nonpublic Business Entity



- Should try to select methodology(ies) by December 31, 2017





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What Should Institutions Be Doing Now (2017)?

- Identify your CECL committee team members
- Document an action plan
- Know the requirements
- Collect data (and begin reviewing it for accuracy)
- Begin analyzing terms/risk factors for your loan portfolio and segmenting appropriate loan pools
- Begin evaluating different models & methodologies
- Be prepared to adapt



How Can Wipfli Help?

- Help identify data requirements
- Help extract and accumulate data from systems
- Model data in Excel worksheets
- Help evaluate different vendor models
- Help develop internal models
- Provide project management consulting
- Provide people/resources



Questions?



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