

# Federal Tax Cuts and Job Act for Banks and CECL Implementation



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**WIPFLI**  
CPAs and Consultants

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# Agenda

- Tax changes impacting all banks
- Tax changes impacting C-corporation banks
- Tax changes impacting S-corporation banks
- Tax changes impacting bank customers
- CECL Implementation



# Tax Changes Impacting All Banks



# Business Taxation – All Banks

- Depreciation and Expensing (Bonus Depreciation and Section 179 Expensing)
- Meals and Entertainment Expenses
- Impact of Tax Rate Changes on Tax-Exempt Investments



# Bonus Depreciation

Period	Applicable Percentage
9/27/2017 - 2022	100%
2023	80%
2024	60%
2025	40%
2026	20%



# 179 Expensing

Year	Section 179 Expense Limitation	Phase Out Starts At
2017	\$510,000	\$2,030,000
2018	\$1,000,000	\$2,500,000





# 179 Expensing

- The TCJA increases the 179 expensing limit to \$1 million.
- Both expensing limitation and phase amounts will be indexed for inflation for tax years beginning after 2018.
- It also increases the 179 expensing for SUVs to \$25,000.
- The TCJA expands the definition of qualified property to include improvements to nonresidential real property placed in service after the date the property was first placed in service:
  - Roofs
  - Heating, ventilation, and air-conditioning
  - Fire protection and alarm systems and security



# Business-Related Entertainment Expenses

Expense	Old Rules	New Rules
Entertainment	50% deductible	0% deductible
Club dues	0% deductible	0% deductible
Business meals	50% deductible	50% deductible
Employee travel meals	50% deductible	50% deductible
<b>Meals provided for convenience of the employer</b>	<b>100% deductible</b>	<b>50% deductible</b>
Office holiday party	100% deductible	100% deductible
Food, services, and facilities made available to public	100% deductible	100% deductible



# Business-Related Entertainment Expenses

- The TCJA repeals deductions allowed under current law for entertainment, amusement, or recreation that is directly related to (or, in certain cases, associated with) the active conduct of the trade or business (and the related rule applying a 50% limit to such deductions) and for facilities used in connection with entertainment, amusement, or recreation.
  - Accordingly, no deduction is allowed for items such as tickets to the theatre or a sporting event, golf green fees, cost of skybox/luxury box, license fees paid to a sporting arena, etc.
  - Membership dues with respect to any club organized for business, pleasure, recreation, or other social purposes continue to be 100% nondeductible.



# M&E Expenses Still Allowed

- A deduction is still generally available for 50% of food and beverage expenses associated with operating a trade or business (e.g., meals consumed by employees on work travel).
- The TCJA makes no change to the 100% allowed deduction for several types of expenses:
  - Amounts reported and included in compensation of employees
  - Amounts includable in income of non-employees (independent contractors)
  - Qualified reimbursed expenses (under accountable plan rules)
  - Qualified employee recreation (e.g., holiday party, summer picnic)



# On-Site Meals & De Minimis Fringes

- The TCJA applies a 50% limit from December 31, 2017, through December 31, 2025, to expenses for food and beverages provided to employees through an eating facility operating for the convenience of the employer, and those expenses are nondeductible after December 31, 2025.
- A similar provision applies to meals provided on the business premise for the convenience of the employer—50% deduction through 2025 and no deduction after.
- Starting in 2018, de minimis fringe benefits (e.g., staff working lunches, pizza and soda when working overtime) are only 50% deductible.



# Impact of Tax Rate Changes on Tax-Exempt Investments

- Lower corporate and individual tax rates potentially reduce the value of various tax-exempt investments and loans.
- When pursuing tax-exempt investments going forward, tax-equivalent yield schedules should be adjusted for the new corporate and individual tax rates.
- This essentially means that the rate on tax-exempt investments and loans will need to be higher than historical, in order to be “tax-equivalent” to taxable investments and loans.



# Impact of Tax Rate Changes on Tax-Exempt Investments

- The tax equivalent yield on the bonds has changed with the reduction in the corporate tax rate.

## Example

	Old Tax Rate	New Tax Rate
Par Value of the Bond	\$ 100,000	\$ 100,000
Coupon Rate	4.0%	4.0%
Federal Tax Rate	34.0%	21.0%
Tax Equivalent Yield	6.06%	5.06%





# Tax Changes Impacting C Corps





# Business Taxation – C Corps

- Corporate Tax Rate Reduction
- Limitations on Net Operating Losses
- Repeal of Corporate AMT
- Accounting Methods and Cash Basis Reporting
- Income Tax Accounting and Reporting Considerations



# Corporate Tax Rate Reduction

## C-Corporation Tax Rates:

Taxable Income	2017	2018
\$0 - \$50,000	15%	21%
\$50,001 - \$75,000	25%	21%
\$75,001 - \$10,000,000	34%	21%
Over \$10,000,000	35%	21%



# Corporate Tax Rate – Additional Considerations

- Tax rate applies for tax years beginning after December 31, 2017.
- TCJA made no change to IRC Section 15. Fiscal year taxpayers will use a blended rate. Calculate tax for full year based on old and new rates and pro rate tax based on number of days before and after rate change date.
  - June 30 year-end – July 1, 2017 to December 31, 2017, taxed at 35% (assumed rate) and January 1, 2018 to June 30, 2018, taxed at 21%. Blended rate of 28.06%.
- No special rate for Personal Service Corporations – also use 21% (previously taxed at 35%).



# Limitations on Net Operating Losses

- The TCJA limits the NOL deduction to 80% of taxable income. This change applies to losses arising in taxable years beginning after December 31, 2017.
- The TCJA repeals the two-year carryback and the special carryback provisions, but provides an exception for certain farming losses. The TCJA also removes the 20-year carryover limitation and provides for an indefinite carryover. These changes apply to net operating losses arising in taxable years beginning after December 31, 2017.



# Repeal of Corporate AMT

- **Alternative Minimum Tax (AMT)** – The corporate AMT has been repealed.



# Accounting Methods and Cash Basis Reporting

- Prior to the TCJA, only sole proprietors, S corporations, and partnerships (without a corporate partner) could use the cash method of accounting regardless of gross receipts level, provided they did not have to account for inventories.
- All other taxpayers could only use the cash method of accounting if their 3-year average gross receipts did not exceed \$5 million.
- The TCJA increases the \$5 million limit to \$25 million for tax years beginning after December 31, 2017.
- The \$25 million limit will be indexed for inflation.
- This would be a Section 481 accounting method change.



# Income Tax Accounting and Reporting Considerations

- Going forward, monthly tax provisions should be calculated at the new corporate tax rate (21%).
- For fiscal year tax filers, a “blended” tax rate will need to be utilized for the fiscal year that includes December 31, 2017. For subsequent fiscal tax years, the new corporate tax rate (21%) will be utilized.



# Income Tax Accounting and Reporting Considerations

- For regulatory capital calculations, consideration should also be given to the change in NOL carryback rules. Current regulatory capital rules allow banks to exclude from deducting from regulatory capital any deferred tax assets related to NOLs or tax credits that can be carried back.
- Under the TCJA, net operating losses will no longer be carried back. As a result, for tax years beginning on or after January 1, 2018, the realization of all deferred taxes will be dependent on future taxable income and therefore subject to the deduction thresholds for regulatory capital purposes.





# Tax Changes Impacting S Corps



# Business Taxation – S Corps

- Changes to Individual Tax Rates
- New 199A 20% Deduction for Non-Corporate Taxpayers
- Impact on Tax Distribution Methodology and Shareholder Agreements
- S Corp vs C Corp Analysis



# Individuals – Ordinary Income Rates

Rate	Single	Married	Head of Household
10%	>\$0	>\$0	>\$0
12%	>\$9,525	>\$19,050	>\$13,600
22%	>\$38,700	>\$77,400	>\$51,800
24%	>\$82,500	>\$165,000	>\$82,500
32%	>\$157,500	>\$315,000	>\$157,500
35%	>\$200,000	>\$400,000	>\$200,000
37%	>\$500,000	> <b>\$600,000</b>	>\$500,000

*Return of marriage penalty...*



# Individuals – Alternative Minimum Tax

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## Exemption

Single/HOH	\$54,300	\$70,300
MFJ	\$84,500	\$109,400

## Phase Out Begins

Single/HOH	\$120,700	\$156,300
MFJ	\$160,900	\$208,400

## Full Phase Out

Single/HOH	\$337,900	\$500,000
MFJ	\$498,900	\$1,000,000

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# New 199A Deduction – Overview

## High-Level Overview

- Generally applies to income from S corps, partnerships (LLCs), and sole proprietorships. Available to individuals, trusts, and estates.
- This is the counterpart to the C-corp tax rate reduction.
- If fully applicable, the deduction will equal 20% of business income.
- Calculated at the individual (or trust and estate) level.
- If applicable, brings the top individual tax rate on business income down to 29.6% (37% X 80%).



# New 199A Deduction – Overview

## Calculation Overview

- Deduction generally equal to 20% of the taxpayer's combined qualified business income (QBI) for the year.
- QBI is sum of:
  - Taxable income or loss for each qualified “trade or business” carried on by the taxpayer, and
  - Aggregate of the taxpayer's qualified REIT dividends and qualified publicly traded partnership income.
- Qualified trade or business income deduction is limited by a “W-2 limitation.”
- The deduction is further limited by 20% of the taxpayer's taxable income (after reduction for qualified capital gain).



# New 199A Deduction – Basic Formula

## Basic Formula

Deductible amount for each qualified trade or business is:

- *Lesser* of:
  - 20% of taxpayer's QBI with respect to the trade or business **OR**
  - Wage limitation
- Then limited by 20% of taxpayer's taxable income. Determined pre-199A deduction and without capital gains.



# New 199A Deduction – Specified Service Business

A “Specified Service Business” includes any trade or business involving performance of services by owners or employees in:

Health	Law	Accounting
Actuarial Science	Performing Arts	Consulting
Athletics	Financial Services	Brokerage Services

**OR**

Any trade or business of performing services as an employee.

*These professions do not “build” things....*



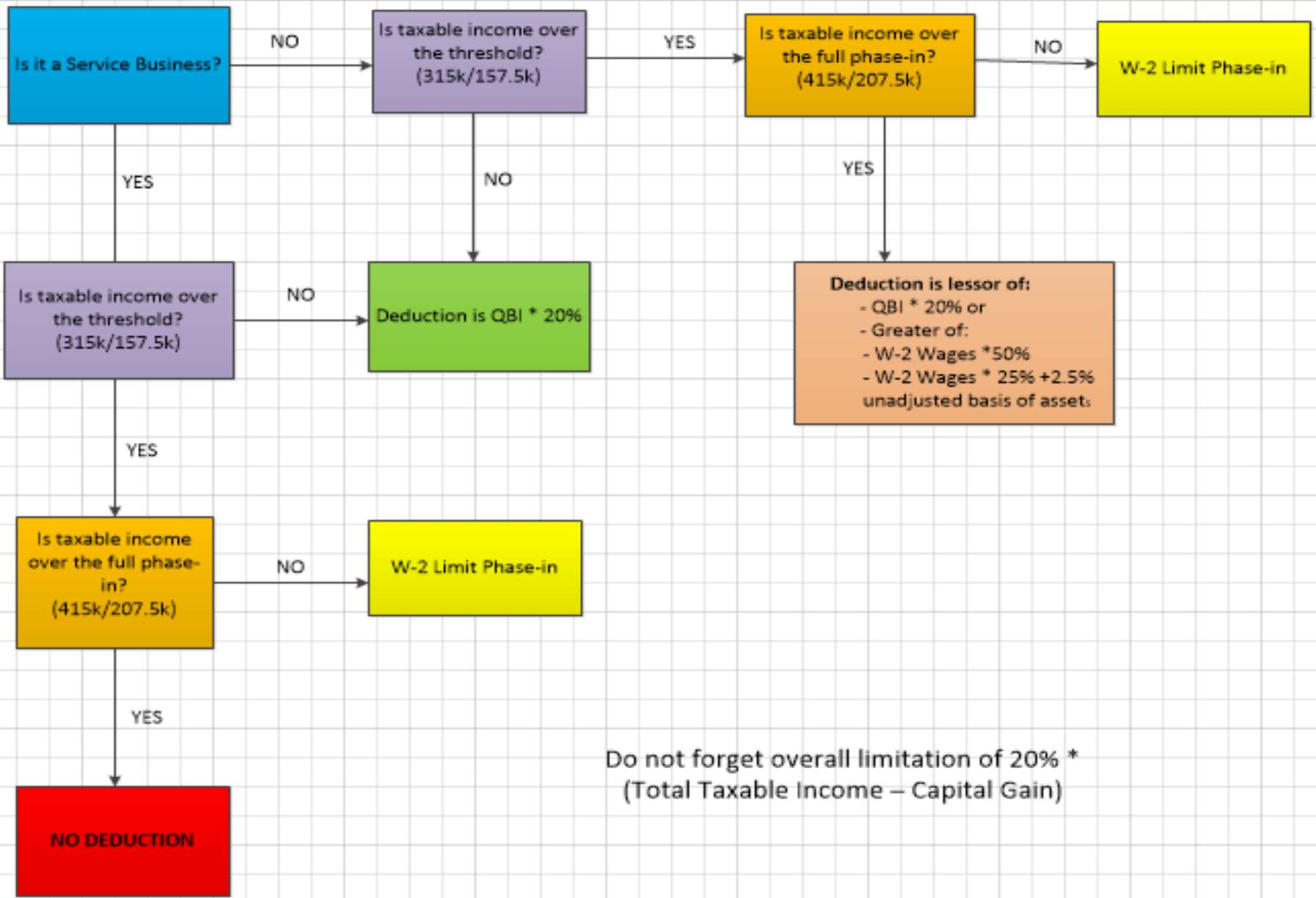


# New 199A Deduction – Specified Service Business

- The final version excluded from the definition of Specified Service Business:
  - Architects
  - Engineers
- Anticipating guidance pertaining to clarification of definition of Specified Service Business

*These professions help “build” things....*





Do not forget overall limitation of 20% \*  
(Total Taxable Income – Capital Gain)



# New 199A – Simple Example

## Simple Example:

### Facts:

Married Couple Filing Jointly

Wage Income \$200,000

S-Corp Income – all QBI \$700,000

*Share of S-Corp's Wages = \$800,000*

Standard Deduction (24,000)

Taxable Income (Pre-199A Deduction) \$876,000





# New 199A – Simple Example

## Simple Example (continued):

Wage Income	\$200,000
S-Corp Income – all QBI	\$700,000
Share of S-Corp's Wages = \$800,000	
Standard Deduction	<u>(\$24,000)</u>
Taxable Income (Pre 199A)	\$876,000
IRC 199A Deduction	<u>(\$140,000)</u>
Taxable Income (Post 199A)	<u>\$736,000</u>
IRC 199A Deduction	\$140,000
Top Marginal Tax Rate	<u>X 37%</u>
Tax Savings	<u>\$51,800</u>



# New 199A Deduction – Open Questions/Planning

- Unclear how a “trade or business” is defined and whether there will be grouping rules included in the definition.
- How will ordinary income from asset dispositions be treated?
- Clarification on definition of “specified service business.”
- Setting “reasonable” compensation and partnership guaranteed payments.
- Several other unanswered questions and possibly unintended consequences to be sorted out. (DPAD IRC 199 Regulations were 199 pages!)



# Rate Comparison

Regular Pass Through	Service Pass Through	C Corp with Dividends- New	C Corp with Dividends- Old
$\begin{array}{r} \$100 \\ \underline{\$(20) \text{ 199A}} \\ \$80 \end{array}$		$\begin{array}{r} \$100 \\ \underline{\text{X } .21} \\ \$ 21 \end{array}$	$\begin{array}{r} \$100 \\ \underline{\text{X } .35} \\ \$35 \end{array}$
$\begin{array}{r} \$80 \\ \underline{\text{X}.37} \\ \$29.6 \end{array}$	$\begin{array}{r} \$100 \\ \underline{\text{X } .37} \\ \$37.0 \end{array}$	$\begin{array}{r} \$79 \\ \text{Dividend} \\ \underline{\text{X } .238} \\ \$18.802 \end{array}$	$\begin{array}{r} \$65 \\ \text{Dividend} \\ \underline{\text{X } .238} \\ \$15.47 \end{array}$
29.6%	37.0%	39.802%	50.47%



# S-Corporation Conversions

- With the highest C-corporation tax rate being 21% and the highest individual tax rate being 37%, does S-corporation status still make sense for your bank?
- Tax rates do not tell the entire story. Benefits of S-corporation status (e.g., avoid double tax on dividends and stock basis increase for undistributed earnings) still apply.
- Do these benefits outweigh the difference in C corporation (21%) versus individual (37% or 29.6%) tax rates? Calculations can be done to quantify the scenarios (C versus S) over a multi-year period, factoring in business plans and assumptions for your bank.
- Your tax advisor can assist with this analysis.





# Impact on Tax Distribution Methodology

- Lower tax rates will cause an “effective” marginal tax rate of 29.6% for most (but not all) S-corporation shareholders.
- Shareholder agreements should be reviewed, and potentially adjusted, in light of the new tax legislation and lower income tax rates. The verbiage within the shareholder agreement will control the tax distribution methodology.
  - Some shareholder agreements call for tax distributions to cover tax liabilities, “net” of any tax benefits resulting from bank losses, deductions, and credits passed through to the shareholder (presumably 29.6% ignoring state taxes).
  - Other shareholder agreements call for tax distributions at the highest individual tax rate (now 37% ignoring state taxes).
  - Each shareholder agreement is different. You should consult with legal counsel to ensure your verbiage accomplishes your desired objectives.



# Tax Changes Impacting Bank Customers



# Tax Changes Impacting Bank Customers

- Changes to Individual Deductions
  - Note changes to mortgage interest!
- Limitations on Business Interest Expense



# Individual Deductions

Alimony Paid

Eliminates the deduction for agreements entered into or modified after 12/31/18.

Moving Expenses

Eliminated.

Personal exemptions

Eliminated – see next slide.

Standard deductions

Roughly doubled – see next slide.

*Approximately 85% of all taxpayers will no longer itemize! Consider state and local tax limitation also.*

PEASE Limitation

Eliminated – but fewer deductions to limit!



# Individual Deductions

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Year	Single	MFJ	MFS	HOH
2017	\$6,350	\$12,700	\$6,350	\$9,350
2018	\$12,000	\$24,000	\$12,000	\$18,000

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Year	Personal Exemptions
2017	\$4,050
2018	\$0

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# Individual Deductions

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Medical expenses

7.5% AGI limitation for 2017 & 2018;  
10% 2019.

State and Local Taxes (SALT)

Schedule A deduction limited to  
\$10,000.

Specifically disallowed prepayment of  
2018 taxes paid in 2017.

**Mortgage Interest Deduction**

Existing mortgages grandfathered;  
Generally deductible on new loans up  
to \$750k; Limited to 2 qualified  
residences.

Acquisition indebtedness incurred  
before 12/15/17 grandfathered under  
prior \$1M.

No deduction for home equity debt.

# Individual Deductions

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Charitable Contributions

Increased Cash Contribution Limits to 60% of AGI. *Will we see more direct IRA dollars to charity?*

Personal Casualty Losses

Repealed except for federally declared disaster areas.

Miscellaneous Itemized Deductions

Eliminated – includes tax prep fees, investment advisory, and legal fees.

Unreimbursed Employee Business Expenses

Eliminated.

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# Business Deductions - Interest

- The TCJA limits a taxpayer's interest expense deduction to the sum of: interest income plus 30% of the adjusted taxable income for the year.
- Businesses with average gross receipts of under \$25 million (measured based on average over a three-year period) are exempt from the limitation.
  - Aggregation rules will apply to combine related entities in testing the \$25 million gross receipts limit.
- Qualifying floor plan financing indebtedness is excluded from interest expense limitation.
  - **Note - Assets financed under the floor plan are not eligible for bonus depreciation.**





# Business Deductions - Interest

- Adjusted taxable income means the taxable income of the taxpayer computed without regard to: (1) any item of income, gain, deduction, or loss which is not properly allocable to a trade or business; (2) any business interest income or expense; (3) the 20% deduction (199A) for certain pass-through income; and (4) the amount of any net operating loss deduction.
- For taxable years beginning before January 1, 2022, adjusted taxable income is further computed without regard to deductions allowable for depreciation, amortization, or depletion.



# Business Deductions - Interest

- Also, at the taxpayer's election, any real property development, redevelopment, construction, reconstruction, acquisition, conversion, rental, operation, management, leasing or brokerage trade or business is not treated as a trade or business for purposes of the limitation, and therefore the limitation does not apply to such trades or businesses.
  - **If this election is made, the real property trade or business must use ADS depreciation system.**
- Qualified farming businesses can make a similar election.
- The amount of any business interest not allowed as a deduction may be carried forward and used as a deduction in a subsequent year.



# Questions ?



# CECL Implementation: Moving Forward



April 12, 2018

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# CECL Implementation: Moving Forward

- CECL Reminders
- Review CECL Methodologies
- Closer Look at a “New” CECL Methodology
- Latest Thoughts
- Developing an Action Plan



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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 <sup>st</sup> quarter of 2020
“Small” public business entities (non-SEC)	12/15/2020 (and interim periods <u>within</u> the first year)	1 <sup>st</sup> quarter of 2021
All other entities	12/15/2020 (and interim periods <u>after</u> the first year)	4 <sup>th</sup> 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





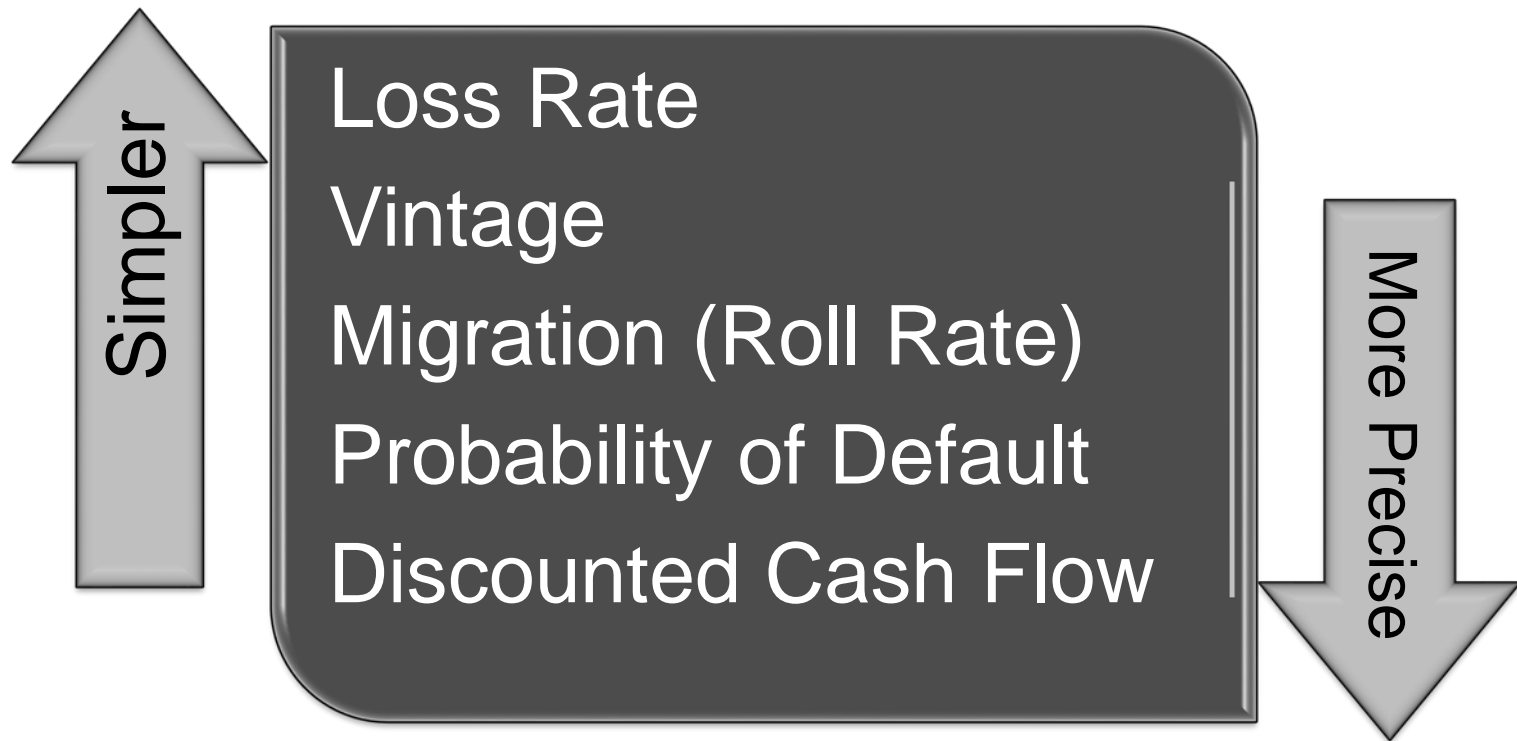
## Review CECL Methodologies

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# Review CECL Methodologies

- Any reasonable approach may be used



# Review CECL 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



# 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

- a/k/a Cumulative Loss, Open Pool, Static Pool
- Identify a pool of loans as of a specific date (e.g., residential real estate loans as of 12/31/2013)
- Accumulate lifetime losses on loans in the pool
- Divide the lifetime losses by the outstanding balance of the pool – this is the CECL expected lifetime loss rate for the pool
- Apply the lifetime loss rate to a current pool (e.g., auto loans as of 12/31/2017)



# Loss Rate Analysis

Year	Portfolio Balance (000s)	Annual Losses (000s)	Annual Loss Rate	2013 Loan Losses (000s)
2013	120,000			
2014	138,000	2,397	1.86%	2,377
2015	157,000	427	0.29%	414
2016	190,000	367	0.21%	145
2017	234,000	173	0.08%	42
				2,978

- Historical lifetime loss rate =  $2,978 / 120,000 = 2.48\%$





# Remaining Life Method (“New”)

- This will look similar to current methodologies, but there are some important differences
- Calculate an average annual loss rate
- Estimate future outstanding balances based on contractual maturities and estimated prepayments
- Multiply the average annual loss rate by the estimated outstanding balance at each future reporting period
- Add up the estimated losses for each period





# Remaining Life Method

- Pool of loans (\$234 million) has an average annual loss rate over the past 3 years of 0.20%
- Management has estimated the future outstanding balance of the pool, including prepayments (000s):
  - 2018 – 158,973
  - 2019 – 95,138
  - 2020 – 51,228
  - 2021 – 0



# Remaining Life Method

Future Year End	Estimated Paydown (000s)	Projected Balance (000s)	Average Annual Loss Rate	CECL Loss Estimate (000s)
2017		234,000	0.20%	468
2018	75,027	158,973	0.20%	318
2019	63,835	95,138	0.20%	190
2020	43,910	51,228	0.20%	102
2021	51,228	0	0.20%	0
				1,078

- Historical lifetime loss rate =  $1,078 / 234,000 = 0.46\%$



# Vintage Analysis

- Segregate a pool of loans into smaller pools based on when the loan was originated (the “vintage”)
- Track losses for each vintage based on much time passed since the origination date (vintage loss rates)
- Analyze trends – when do losses tend to occur
- Apply the vintage loss rates to the **originated balance** of each outstanding vintage based on how much remains before the vintage matures



# Vintage Analysis

Year of Origination	Losses by Year After Origination				
	Year 1	Year 2	Year 3	Year 4	Total
2013	0.33%	0.00%	0.00%	0.00%	0.33%
2014	0.03%	0.00%	0.03%	0.00% ??	
2015	0.16%	0.10%	0.02% ??	0.00% ??	
2016	0.21%	0.03% ??	0.02% ??	0.00% ??	
2017	0.19% ??	0.03% ??	0.02% ??	0.00% ??	

- Est. historical lifetime loss rate =  $295 / 317,233 = 0.09\%$

# Migration Analysis

- a/k/a Roll Rate
- Segregate a pool of loans into smaller pools based on a credit quality indicator (e.g., risk rating, FICO score, etc.)
- Track losses for the pool based on the original (and possibly changes in the) credit quality indicator
- Apply the loss rates for each credit quality indicator to the current pool balance



# 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
<b>Total</b>	<b>120,000</b>	<b>2,377</b>	<b>414</b>	<b>145</b>	<b>42</b>	<b>2.48%</b>	<b>234,000</b>	<b>783</b>

- Est. historical lifetime loss rate =  $783 / 234,000 = 0.33\%$



# Probability of Default

- Relatively simple formula:
  - Probability of Default (PD)
  - x Loss Given Default Rate (LDG)
  - x Outstanding Principal / Exposure (E)
  - = CECL Loss Estimate
- Can be difficult to calculate these inputs without some statistical analysis
- Will generally require special software



# Discounted Cash Flow

- Projected cash flows discounted at the loan pool's effective yield
- Need to be able to create an amortization schedule for each loan in the pool that incorporates various inputs (payment amount and schedule, prepayment factor, loss rate, discount rate, etc.)
- A relatively easy model for individual loan analysis
- Can be difficult to complete this for an entire pool
- Will generally require special software





# Summary

- Generally all CECL methodologies will be a variant of one of these methodologies or a hybrid of multiple methodologies used together
- No “one size fits all”
- All of these methodologies will also require a qualitative analysis for current conditions and forecasted conditions
- The less precise a methodology is, generally the more qualitative analysis must be completed





## Latest Thoughts

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# Latest Thoughts

- Federal Reserve and FDIC, along with the CSBS, FASB, and SEC, presented a webinar on February 27, 2018
  - <https://www.webcaster4.com/Webcast/Page/583/24368>
- Reiterated the following:
  - Less complex institutions can develop their own methodology(ies)
  - One size doesn't fit all
  - Expect a good faith effort by the effective date



# Latest Thoughts

- Challenges highlighted by the regulators:
  - Minimal losses
  - Losses do not have a predictive pattern
  - Small loan pools
  - Not a significant amount of historical data
  - Change in pool/portfolio composition
  - Change in economic environment



# Latest Thoughts

- Other thoughts from regulators:
  - Data availability is a factor when considering the CECL methodology
  - Necessary changes to systems/operations
  - May need to look at peer data if you don't have enough of your own data
  - May need to warehouse data outside of spreadsheets
  - Start now!



# 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



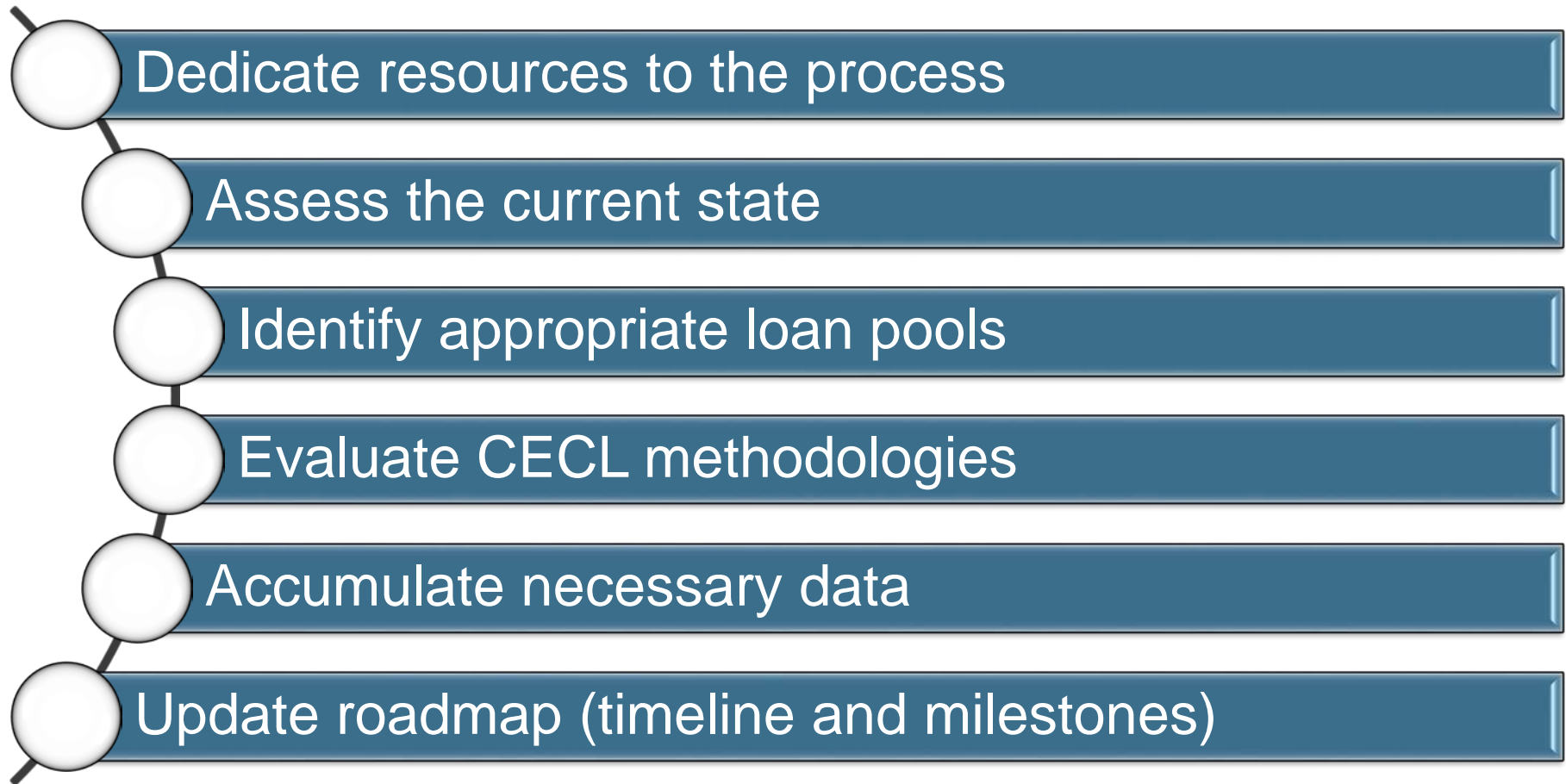




## Developing an Action Plan

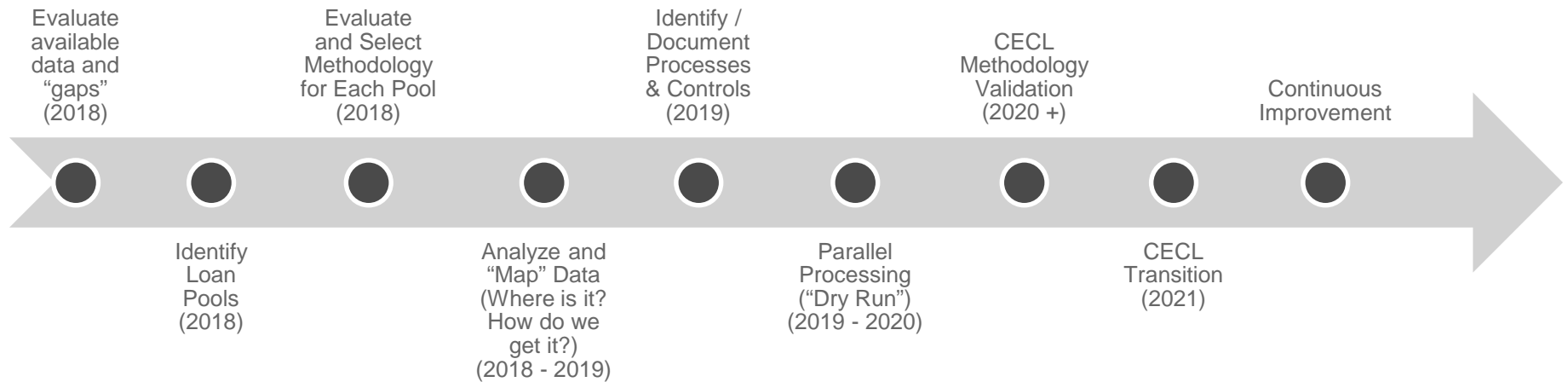
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# Developing an Action Plan





# Sample Milestones (non-PBE)



- Data gathering through the whole process
- Not always a "linear" process
- Communication with core vendor, regulator, auditor
- Continue to learn / be prepared to adapt



# Questions?



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