The Problem

Many institutions

» Need a benchmark for CECL allowances for Day 0 because –
  – They may have zero losses in history
  – They may lack good quality data on historical losses
  – They may have a new portfolio

» Want to compare CECL allowances with industry peers

» Want to project CECL allowances on future dates for capital planning
A Solution from Bank and Credit Union Call Reports

Top-down approach for small institutions, small and/or young portfolios

» Produces scenario-conditioned lifetime net losses at different evaluation dates (past, Day 0 & future)

» Takes into account current and future economic conditions

» Applies mean reversion after R&S period

» Produces lifetime net losses by estimated vintages

» Amortizes balance to calculate current book at each evaluation date

» Uses net loss rate methodology (one of the CECL acceptable methodologies)

And…Is CECL COMPLIANT!
Is This Different from Historical Loss/WARM Approaches?

YES!!

» Historical Lifetime Loss/Historical Vintage/WARM approaches incorporate forward-looking elements only qualitatively.

» In this call report approach, industry and bank/CU net charge-off rate forecasts are produced quantitatively through an econometric model which incorporates R&S economic forecasts.
Is This Different from Loss Rate Approaches?

YES!!

» Does not model bank/CU loss data directly

» Data for small institutions is usually volatile, noisy or short. This is inadequate for modeling

» Industry data is smoother. Industry forecasts are combined with forecasts of the bank/CU market share to produce more accurate bank-level projections
3 Simple Steps

STEP 1: Produce scenario-conditioned forecasts of bank/CU net chargeoff rates

STEP 2: Define a R&S period, life of loan, interest rate

STEP 3: Estimate outstanding balance at each evaluation date

Net lifetime losses by vintage
Choose Your Specifications

Select Bank

Central Bank

Select Asset Class

Auto

Select Peer for Net Charge-Offs

Industry

Enter Quarterly Originations:

BROWSE... No file selected

Enter Average Loan Life (Quarters)

4 20 50

Enter Reasonable and Supportable Period
(Quarters)

1 9 20

Enter Reversion Period (Quarters)

1 8 30

Enter Long-Run Annual Net Charge-Off Rate
(%) : Defaults to Historical Mean

Select Scenarios

☑ Moody’s Baseline
☑ Stronger Near-Term Rebound (S1)
☐ Slower Near-Term Recovery (S2)
☑ Moderate Recession (S3)
☑ Protracted Slump (S4)
☐ Below-Trend Long-Term Growth (S5)
☐ Stagflation (S6)
☐ Next-Cycle Recession (S7)
☐ Low Oil Price (S8)

Enter As Of Date

2019 Q1

Enter Annual Interest Rate (%)

5
See CECL Reserves Under Diff. Economic Conditions…

<table>
<thead>
<tr>
<th>As Of</th>
<th>BL</th>
<th>S1</th>
<th>S3</th>
<th>S4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 Q1</td>
<td>$ 24,397</td>
<td>$ 23,337</td>
<td>$ 31,336</td>
<td>$ 32,315</td>
</tr>
</tbody>
</table>
…on Different ‘As of’ Dates…
…by Vintage of Loans

Numbers in $1,000's

<table>
<thead>
<tr>
<th>Vintage</th>
<th>BL Originations</th>
<th>BL Current</th>
<th>BL CECL</th>
<th>S4 Originations</th>
<th>S4 Current</th>
<th>S4 CECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Q2</td>
<td>82,762</td>
<td>4,452</td>
<td>8</td>
<td>82,762</td>
<td>4,449</td>
<td>10</td>
</tr>
<tr>
<td>2014 Q3</td>
<td>129,598</td>
<td>13,907</td>
<td>40</td>
<td>129,598</td>
<td>13,900</td>
<td>53</td>
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<tr>
<td>2014 Q4</td>
<td>97,563</td>
<td>15,650</td>
<td>63</td>
<td>97,563</td>
<td>15,643</td>
<td>85</td>
</tr>
<tr>
<td>2015 Q1</td>
<td>47,643</td>
<td>10,147</td>
<td>52</td>
<td>47,643</td>
<td>10,143</td>
<td>70</td>
</tr>
<tr>
<td>2015 Q2</td>
<td>89,987</td>
<td>23,846</td>
<td>147</td>
<td>89,987</td>
<td>23,837</td>
<td>200</td>
</tr>
<tr>
<td>2015 Q3</td>
<td>117,324</td>
<td>37,151</td>
<td>270</td>
<td>117,324</td>
<td>37,137</td>
<td>369</td>
</tr>
<tr>
<td>2015 Q4</td>
<td>121,918</td>
<td>44,862</td>
<td>376</td>
<td>121,918</td>
<td>44,846</td>
<td>517</td>
</tr>
</tbody>
</table>
However, the Method is Not Without Limitations

» Available only for broad call report product categories/segments.
  – But, user can enter loss rate information for sub-segments. This can be used to share down call report segment losses

» Vintage information is estimated from amortization schedule. Prepayments are not recognized.
  – But, user can overwrite the estimated originations by entering quarterly origination information
Bank/Credit Union Call Report Segments

Consumer Credit/Retail

Mortgage, Auto, Credit Cards, HELOC, HELOAN, Student Loan, etc

C&I

Owner Occupied, Non-Owner Occupied, and Construction

CRE
For More Information

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