Current Expected Credit Loss Model ("CECL")

The Bonadio Group
November 21, 2013
Current Expected Credit Loss Model

Topics Covered

- Proposed standard
- Discounted cash flow example that meets standard
- Input assumptions – prepayment, default, and loss severity
Impairment Introduction

FASB Proposed Accounting Standards Update (ASU)

• Issued on December 20, 2012
• Will significantly change the allowance for loan and lease losses and other approaches to impairment
• Newly created subtopic “Financial Instruments: Credit Losses (Subtopic 825-15)"

FASB FAQ

• Issued on March 25, 2013
Credit Impairment: Versions 1, 2, and 3

Three versions:
• Original May 2010 proposal
• FASB and IASB Supplementary Document “Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities – Impairment” issued on Jan 31, 2011
• “Three bucket approach” developed jointly with IASB
  – U.S. stakeholders raised a number of questions primarily related to migration
Overview: Scope

Not just the Allowance for Loan and Lease Losses

Instrument Classification

– Applies to all financial assets not classified at Fair Value
Instrument Type

• All financial assets - - debt instruments, leases, and loan commitments
  – The term “debt instrument” is defined in the proposal as “a receivable or payable that represents a contractual right to receive cash (or other consideration) or a contractual obligation to pay cash (or other consideration) on fixed or determinable dates, whether or not there is any stated provision for interest.”
  – Covers loans, debt securities, trace receivables, reinsurance receivables, lease receivables, and loan commitments
Overview: The CECL Model

Amortized cost should be based on the present value of the cash flows an entity expects to collect

• Cash flows are adjusted for expected prepayments and defaults
• Cash flows expected to be collected are discounted at the effective interest rate
• Cash flows not expected to be collected are also discounted at the effective interest rate
Overview: The CECL Model

Why the Change?

• GAAP did not properly reflect risk pre-financial crisis because of the delayed recognition of credit losses – Financial Crisis Advisory Group
  – 362 comment letters – investors generally in favor of CECL and preparers generally not

• Departs from the incurred loss model which means the probable threshold is removed
  – Removes the prohibition on recording day one losses
Measuring Expected Credit Losses

• Begin with historical loss rates for similar assets (grouped approach)
  – Static pool for example
• Adjust for current conditions
• Adjust for reasonable and supportable forecasts
• Life of loan estimate - can assume economic conditions after the end of the reasonable forecast time period remain the same or can revert to historical loss rates
Technical Considerations

- Permits allowance calculation to be based on methods which “implicitly” include the time value of money
  - DCF explicitly considers time value of money
  - Loss-rate, roll-rates, probability of default methods and provision matrices implicitly consider
- Contemplates use of mean and not mode if using statistical modeling
For Purchased Credit-Impaired (PCI) financial assets

- Amortized cost would be the purchase price plus the associated expected credit loss at acquisition. The difference between amortized cost and the par amount (noncredit discount or premium) is amortized or accreted into income.

- The credit discount is not accreted - establish a day one allowance instead.

- Permits increases in expected cash flows to be recognized immediately – significant shift from current GAAP.
Proposed TDR guidance is largely unchanged

- Use the modified contractual cash flows, discounted at the original effective interest rate

- Difference would be recorded by a basis adjustment rather than an allowance
The CECL Model for Debt Securities

No more “other than temporary impairment” (OTTI) model for debt securities

• Change from individual security evaluation to include pool evaluations

• Record an allowance instead of direct write-off (allows the opportunity for reversal)

• For assets carried at FV/OCI, there is a practical expedient available. Credit losses do not have to be recognized if both:
  – Fair value equals or exceeds the amortized cost (which is the first step in the existing OTTI model); and
  – Expected credit losses on the asset are insignificant
Redefines collateral dependent in the glossary

- “A financial asset for which the repayment is expected to be provided *primarily or substantially* through the operation (by the lender) or sale of the collateral, based on an entity’s assessment as of the reporting date.”
- Clarifies that operation is by the lender and removes the word “solely”

Defines nonaccrual, cost-recovery and cash-basis methods, write-off (charge-off)
Discounted Cash Flow Analysis

Industry Approach to Valuation of Fixed Income Investments

Key Valuation Inputs:

- Conditional Repayment Rate (CRR)
- Conditional Default Rate (CDR)
- Conditional Prepayment Rate (CPR = CRR + CDR)
- Loss Severity
- Discount Rate – Depends on Accounting Context for CECL it is original yield
## Discounted Cash Flow Analysis

2 Loan Example  
Fixed Rate Mortgage Loan Valuation as of September 30, 2013

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<tr>
<th>Principal Balance</th>
<th>FICO</th>
<th>LTV</th>
<th>WAC</th>
<th>Age</th>
<th>WAM</th>
<th>Avg Life</th>
<th>CPR %</th>
<th>CRR %</th>
<th>CDR %</th>
<th>Severity %</th>
<th>Future Loss %</th>
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## Discounted Cash Flow Analysis

<table>
<thead>
<tr>
<th>Loan #</th>
<th>$642.46</th>
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### Loan Details

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<th>Interest</th>
<th>Total P&amp;I Collected</th>
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<th>Repo Balance</th>
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<td>5,894</td>
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<td>13 - 302</td>
<td>71 - 360</td>
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<td>-</td>
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<tr>
<td>Total</td>
<td>11,331</td>
<td>35,116</td>
<td>33,905</td>
<td>80,352</td>
<td>25,763</td>
<td>106,115</td>
<td>53,553</td>
<td>19,648</td>
<td>-</td>
<td>-</td>
<td>0.676%</td>
<td>1.013%</td>
<td>36.7%</td>
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</tbody>
</table>
Discounted Cash Flow Analysis

CDR and Loss Severity Inputs

• Credit Conditions Improving
• Risk of Prepayment has Decreased
Improving Credit Conditions

Unemployment Rates
(12/31/2006 - 6/30/2013)

Source: U.S. Bureau of Labor and Statistics
Improving Credit Conditions

Loans Past Due 30 Days or More as a Percentage of Loans with Outstandings

Source: American Bankers Association – Consumer Credit Delinquency
Improving Credit Conditions

Delinquency Rates on Loans and Leases at Commercial Banks

Source: Federal Reserve Delinquency Rates
Delinquency Rates on Loans at Commercial Banks

Source: Federal Reserve Delinquency Rates
30 Day Plus Residential Mortgage Loans By Region

Source: Mortgage Bankers Association – National Delinquency Survey
<table>
<thead>
<tr>
<th>State</th>
<th>Serious Delinquencies</th>
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</thead>
<tbody>
<tr>
<td>Florida</td>
<td>12.63</td>
</tr>
<tr>
<td>New Jersey</td>
<td>12.13</td>
</tr>
<tr>
<td>New York</td>
<td>9.25</td>
</tr>
<tr>
<td>Nevada</td>
<td>8.68</td>
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<tr>
<td>Maine</td>
<td>7.77</td>
</tr>
<tr>
<td>Illinois</td>
<td>7.74</td>
</tr>
<tr>
<td>Maryland</td>
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</tr>
<tr>
<td>Connecticut</td>
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</tr>
<tr>
<td>Rhode Island</td>
<td>6.84</td>
</tr>
<tr>
<td>Delaware</td>
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</tr>
<tr>
<td>Ohio</td>
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<td>Mississippi</td>
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<td>Indiana</td>
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<td>Hawaii</td>
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<td>Massachusetts</td>
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<tr>
<td>District of Columbia</td>
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</table>

Shaded states = Judicial

Source: Mortgage Bankers Association
Improving Credit Conditions

FHFA Seasonally Adjusted House Price Index

Source: FHFA
Improving Credit Conditions

Housing Price Index (Seasonally Adjusted)
2nd Quarter 2012: Change Over Latest Four Quarters

Source: FHFA

Wilary Winn Risk Management LLC
### Changes in Housing Prices

<table>
<thead>
<tr>
<th>City</th>
<th>One Year</th>
<th>Five Year</th>
<th>Fore</th>
<th>City</th>
<th>One Year</th>
<th>Five Year</th>
<th>Fore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td>14.04%</td>
<td>-13.24%</td>
<td>N</td>
<td>Orlando</td>
<td>17.56%</td>
<td>-20.15%</td>
<td>J</td>
</tr>
<tr>
<td>Bakersfield</td>
<td>21.84%</td>
<td>-12.04%</td>
<td>N</td>
<td>Phoenix</td>
<td>23.28%</td>
<td>-13.38%</td>
<td>N</td>
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<tr>
<td>Chicago</td>
<td>6.65%</td>
<td>-19.49%</td>
<td>J</td>
<td>Riverside</td>
<td>21.92%</td>
<td>-6.25%</td>
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<tr>
<td>Fort Lauderdale</td>
<td>13.33%</td>
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<td>San Francisco</td>
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<td>5.37%</td>
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<td>Tucson</td>
<td>6.97%</td>
<td>-24.01%</td>
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</table>

Source: FHFA
Improving Credit Conditions

Expected Home Price Long Term Average

Source: Pulsenomics/Zillow
Real Estate Loans – Key Loan Attributes

- Interest rate – fixed or variable
- Contract term – balloons, hybrids, etc.
- Lien position
- Closed or open ended
- Source – retail vs. wholesale
- Loan purpose – primary, second home, investor
- Debt to income ratios
- Credit score
- Loan-to-value ratio
Risk Layering

Average 12 month CDR% by LTV% and FICO

- Orange: > 125%
- Green: 105% - 125%
- Blue: 95% - 105%
- Red: 80% - 95%
- Light blue: < 80%

FICO
- > 775
- 725 - 774
- 700 - 724
- 650 - 699
- 600 - 649

CDR%
Services and Contact Information

Asset Liability Management and Private Label MBS/CMOs:
  Frank Wilary  fwilary@wilwinn.com

Mergers and Acquisitions, Fair Value Footnotes, and ASC 310-30:
  Brenda Lidke  blidke@wilwinn.com

Mortgage Servicing Rights, Mortgage Banking Derivatives, and TDRs:
  Eric Nokken  enokken@wilwinn.com

Pooled Trust Preferred CDOs:
  Gregg Johnson  gjohnson@wilwinn.com
Contact Information

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Alliance Bank Center
55 East 5th Street, Suite 1020
Saint Paul, MN 55101
651-224-1200

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