Loss Estimation is key ...

- To Stress Testing
- To Capital Adequacy analysis
- To Loan Provisioning analysis

Key Principles:
- Be careful of applying broad loss rates to individual portfolios.
- Capital is for unexpected losses, not expected losses.
- Concentration & correlation increase volatility.
- Community banks can do a good job at this.
The SCAP Approach

- Constraints: limited by data, time and the need for consistent treatment across firms.
- Divided the portfolio into a series of subportfolios and separately estimated losses for each of them.
- Subportfolios include:
  - Construction (residential & commercial)
  - Owner Occupied CRE
  - Multi-family and non-farm, non-residential
  - Foreign and special portfolios
  - Term defaults and refinance defaults
### Cyclical Shifts vs. Regime Shifts

<table>
<thead>
<tr>
<th>Case 1: Traditional</th>
<th>Case 2: Bubble Period</th>
<th>Case 3: Post Bubble</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF Rent PSF</td>
<td>$20</td>
<td>SF Rent PSF</td>
</tr>
<tr>
<td>Gross Potential Rent</td>
<td>$2,000,000</td>
<td>Gross Potential Rent</td>
</tr>
<tr>
<td>Vacancy</td>
<td>15%</td>
<td>(300,000)</td>
</tr>
<tr>
<td>Net Rental Revenue</td>
<td>$1,700,000</td>
<td>Net Rental Revenue</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>$300,000</td>
<td>Operating Expenses</td>
</tr>
<tr>
<td>Net Operating Income</td>
<td>$1,400,000</td>
<td>Net Operating Income</td>
</tr>
<tr>
<td>Cap Rate</td>
<td>9%</td>
<td>Cap Rate</td>
</tr>
<tr>
<td>Value</td>
<td>$15,555,556</td>
<td>Value</td>
</tr>
<tr>
<td>Max LTV</td>
<td>75%</td>
<td>Max LTV</td>
</tr>
<tr>
<td>Loan Amount</td>
<td>$11,666,667</td>
<td>Loan Amount</td>
</tr>
<tr>
<td>Debt Service</td>
<td>$85,605.87</td>
<td>$1,027,270</td>
</tr>
<tr>
<td>DSCR</td>
<td>1.36</td>
<td>DSCR</td>
</tr>
</tbody>
</table>

Changing the cap rate only accounts for 41% of the value change. Changing the NOI only accounts for 59% of the value change.
SCAP used a series of national 2 year loss rates through 2010 that may not be appropriate for community banks.

Historical data may not be helpful. We live in unprecedented times.

Many banks are counting on a V-shaped recovery. What if it does not happen?

“Imagination is more important than knowledge” – Albert Einstein
What level of analysis is appropriate for smaller banks?

- The level of analysis should be consistent with the size and complexity of the organization.
- If the bank has a concentration in CRE, then a higher level of analysis is expected.
- Banks should have sufficiently granular data to analyze loan level credit metrics, at least for the largest loans.
- Regional economic conditions will impact how CRE markets react to stress.
Construction Loans

- The hardest losses to quantify, but also the largest, especially for community banks.

- Additional problems:
  - Regime shift occurred in demand
  - No ongoing cash flow to structure around
  - Need to determine “highest and best” use
  - Single obligor concentrations

- The absorption time for these projects could be measured in years and not in months.
  - How much can a bank rely on recourse?
Having more foreclosures than necessary is in no one’s best interest.

A loan should not be adversely classified solely because the value has declined.

As long as the property is producing cash flow a sustainable loan can be structured.

- A / B Notes
- Needs to include amortization and reasonable DSCR
- TDR guidelines have not been changed

Not “pretend & extend”, but “prudent”.