Third Quarter Changes in Interest Rates

U.S. Treasury rates declined across all maturities between the second quarter and third quarter of 2010. Yields on the six-month bill and two-year note fell by 3 basis points (bps) and 19 bps to 0.19% and 0.61%, respectively. Similarly, yields on the 10-year note and 30-year bond fell 44 bps and 22 bps to 2.53% and 3.69%, respectively. The Treasury yield curve flattened in the third quarter as the spread between the yield on the 10-year note and 2-year note decreased to 211 bps in September from 236 bps in June. Since the end of September, however, longer maturity Treasury rates have increased resulting in a considerably steeper yield curve. Yields on the 10-year note and 30-year bond increased 77 bps and 65 bps in the fourth quarter to reach 3.30% and 4.34% as of year end. This increased the spread between the yields on the 10-year and 2-year notes to 269 bps which, as shown in Exhibit 2, is comparable to the historically steep conditions experienced in the beginning of 2010. Notwithstanding a steep yield curve, financial institutions should continue to consider how their asset and liability mix will behave in yield curve flattening and/or increasing interest rate scenarios.

As in previous quarters, the Federal Reserve continued to maintain the target Federal Funds rate within a range of 0-0.25% throughout the third quarter. After its November meeting, however, the FOMC announced that due to concerns about a slow economic recovery and low inflation, it will begin purchases of $600 billion of longer-term Treasury securities. This new policy – known as Quantitative Easing II – will be completed by the end of the second quarter of 2011 and is in addition to the existing policy of reinvesting payments from its agency MBS and agency debt portfolios into Treasury securities. With its new policy of quantitative easing the Federal Reserve is aiming to suppress long term interest rates in order to encourage economic growth.
LIBOR/Swap rates declined in the third quarter. The three-month and six-month LIBOR rates fell 24 bps and 29 bps to 0.29% and 0.46%, respectively. Similarly, the two-year and ten-year swap rates decreased 36 bps and 43 bps to 0.61% and 2.59%.

Mortgage rates decreased in the third quarter. The FNMA 60-day commitment rate for a 30-year mortgage declined 37 bps to 3.83%. Despite a slight decrease in mortgage rates, mortgage security prices also decreased slightly in the third quarter as shown in Exhibit 3. For example, the price of a FNMA 5% coupon TBA MBS decreased from $105.81 in June to $105.34 in September. Since the end of the third quarter, mortgage rates have followed broader interest rates higher as the FNMA commitment rate has increased to 4.57%. Mortgage and broader rate increases throughout the fourth quarter will likely result in lower pre-shock values and higher sensitivity measures for reporting thrift institutions in the fourth quarter compared to the third quarter.

### Exhibit 3

<table>
<thead>
<tr>
<th>Coupon (%)</th>
<th>WAC (%)</th>
<th>WAM (Months)</th>
<th>Price</th>
<th>10yr Avg CPR (%)</th>
<th>1yr Avg CPR (%)</th>
<th>Yield (%)</th>
<th>WAL (Years)</th>
<th>Z-Spread (BP)</th>
<th>OAS (BP)</th>
<th>Option Cost (BP)</th>
<th>Eff.Duration (Years)</th>
<th>Eff.Convexity</th>
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<td>4.97</td>
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<td>104.19</td>
<td>13</td>
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### 30-Year Conventional

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<thead>
<tr>
<th>Coupon (%)</th>
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<th>WAM (Months)</th>
<th>Price</th>
<th>10yr Avg CPR (%)</th>
<th>1yr Avg CPR (%)</th>
<th>Yield (%)</th>
<th>WAL (Years)</th>
<th>Z-Spread (BP)</th>
<th>OAS (BP)</th>
<th>Option Cost (BP)</th>
<th>Eff.Duration (Years)</th>
<th>Eff.Convexity</th>
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Balance Sheet Composition Trends within the Thrift Industry

Thrifts have decreased their holdings of single-family mortgage loans and securities over the course of the past year, continuing a longer term trend of declining single-family assets over the past several years. As seen in Exhibit 4, when holding September 2010 reporting institutions constant the average ratio of single family mortgage loans and securities to total assets fell to 42.4% in September 2010 from 43.9% in September 2009 and 44.3% in September 2005. Similarly, the average ratio of total adjustable rate, single-family mortgage loans and securities to total assets decreased to 12.4% in September 2010 from 12.8% a year ago and 16.3% five years ago. Although holdings of 30-year, fixed rate, single-family mortgage loans and securities are relatively unchanged over the past year, the concentration has increased to 13.6% of total assets in September 2010 from 9.4% in September 2005.

On the liability side of the balance sheet, thrifts continue to increase their use of deposits to fund assets. As seen in Exhibit 5, when holding September 2010 reporting institutions constant the average ratio of deposits to total assets has increased to 76.4% from 73.5% over the past year and from 67.1% in September 2005. The average ratio of non-maturity deposits to total assets has increased to 34.5% in September 2010 from 31.1% in September 2009. In recent
quarters, thrift institutions have also been increasing the term of their fixed-rate, fixed-maturity (FRFM) deposits. The average ratio of FRFM deposits maturing in 12 months or less to total assets has decreased to 28.3% in September 2010 from 31% in September 2009, while the average ratio of FRFM deposits maturing in 13 months or more to total assets has increased to 13.6% from 11.3% a year ago. The weighted average term for all FRFM deposits has increased to 12.2 months from 10.4 months a year ago.

Both longer term FRFM deposits and non-maturity deposits can help reduce an institution’s sensitivity to rising interest rates. The intangible value associated with non-maturity deposits is derived from an institution’s ability to change offered rates with a lag relative to market rate increases. It is important for thrifts to remember that the OTS NPV Model provides only an approximate valuation of an institution’s deposit intangible value. Thrift institutions should fully understand their customer deposit behavior and should account for the possibility that past experiences will not provide an accurate forecast for depositor behavior in the current rate environment.

Thrifts have been decreasing their concentration of borrowings as a funding source over recent quarters. After peaking in late 2008, the average ratio of borrowings to total assets has decreased to 7.7% in September 2010 from 9.4% in September 2009.

Third Quarter NPV Model Results and the Thrift Industry IRR Profile

Pre-shock and post-shock NPV Capital ratios declined in the third quarter. The median pre-shock NPV Capital ratio decreased to 13.31% in the third quarter from 13.65% in the second quarter (Exhibit 6). Likewise, the median post-shock NPV Capital ratio decreased to 12.10% in the third quarter from 12.55% in the second quarter. The median sensitivity measure increased slightly to 83 bps in the third quarter from 80 bps in the second quarter (Exhibit 7). Contributing to higher sensitivity measures were higher asset durations and lower liability durations. The industry’s median effective duration of total assets increased from 1.28 in the second quarter to 1.30 in the third quarter. Conversely, the median effective duration of total liabilities decreased from 1.38 in the second quarter to 1.30 in the third quarter. Taken together, these changes produced a duration gap of zero, reversing a negative duration gap experienced in the second quarter. Contributing to higher total asset durations were 30-year, single family, fixed-rate mortgage loans and securities. The median effective duration of 30-year loans increased to 2.54 in September from 2.09 in June while the median effective duration of 30-year securities increased to 2.34 in September from 2.00 in June.

From a regulatory perspective, the number of institutions that have a “Significant” or “High” level of interest rate risk as defined in Thrift Bulletin 13a increased to six institutions in the third quarter from two in the second quarter (Exhibit 8). The number of institutions with a sensitivity measure of 200 bps or greater also increased to 132 in the
third quarter from 108 in the second quarter. It is important for institutions to recognize, however, that because the OTS NPV model assumes all loans and securities to be prime, agency conforming exposures, pre-shock NPV ratios may be overstated and sensitivity measures may be understated for those institutions that hold a large amount of non-conforming loans and other non-prime assets. Financial institutions should consider whether their specific pre-shock values can be considered reasonable when considering the OTS approach (i.e. – assuming all assets to be of prime quality) and their particular portfolio. Additionally, prepayment estimates for single-family mortgage loans and securities have become increasingly difficult to forecast as actual prepayment rates remain well below levels that would be expected in the current interest rate environment. As such, thrifts should recognize the possibility that effective durations (and sensitivity to rate increases) for these assets could be higher than what current interest rates would typically imply.

To illustrate the potential for the OTS NPV model to overstate pre-shock capital, sensitivity measures can be applied to equity capital in the place of pre-shock capital. In this example, the number of “Significant” or “High” rated institutions increases to 20 from six (Exhibit 9).
Appendix A — All Thrifts

### Sensitivity Measure Distribution

#### All Thrifts

- **Descriptive Statistics**
  - Median: 0
  - Mean: 4.16
  - Standard Deviation: 1.89
  - Skewness: 3.89
  - Kurtosis: 3.89
  - Maximum: 508.459
  - Minimum: 0
  - Count: 700

### Pre-Shock NPV Ratio Distribution

#### All Thrifts

- **Descriptive Statistics**
  - Median: 13.31
  - Mean: 15.4
  - Standard Deviation: 9.76
  - Skewness: 4.81
  - Kurtosis: 30.15
  - Maximum: 91.877
  - Minimum: -11.32
  - Count: 700

### Post-Shock NPV Distribution

#### All Thrifts

- **Descriptive Statistics**
  - Median: 12.1
  - Mean: 14.24
  - Standard Deviation: 9.74
  - Skewness: 4.96
  - Kurtosis: 31.58
  - Maximum: 91.271
  - Minimum: -11.99
  - Count: 700

### Asset Duration Distribution

#### All Thrifts

- **Descriptive Statistics**
  - Median: 1.3
  - Mean: 1.36
  - Standard Deviation: 0.63
  - Skewness: 0.36
  - Kurtosis: 0.71
  - Maximum: 4.216
  - Minimum: -1.216
  - Count: 700

### Liabilities Duration Distribution

#### All Thrifts

- **Descriptive Statistics**
  - Median: 1.3
  - Mean: 1.33
  - Standard Deviation: 0.45
  - Skewness: 2.05
  - Kurtosis: 20.35
  - Maximum: 6.244
  - Minimum: 0.03
  - Count: 700
Appendix B — Northeast Region

**Sensitivity Measure Distribution**

Northeast

<table>
<thead>
<tr>
<th>Median</th>
<th>Mean</th>
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<th>Skewness</th>
<th>Kurtosis</th>
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**Descriptive Statistics**

**Pre-Shock NPV Ratio Distribution**

Northeast

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<th>Skewness</th>
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**Descriptive Statistics**

**Post-Shock NPV Ratio Distribution**

Northeast

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<th>Median</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
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**Descriptive Statistics**

**Asset Duration Distribution**

Northeast

<table>
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<th>Median</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
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**Descriptive Statistics**

**Liabilities Duration Distribution**

Northeast

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<th>Skewness</th>
<th>Kurtosis</th>
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**Descriptive Statistics**
Appendix C — Southeast Region

Sensitivity Measure Distribution
Southeast

Descriptive Statistics
Median = 68
Mean = 106
Standard Deviation = 105
Skewness = 1.54
Kurtosis = 2.28
Maximum = 497.432
Minimum = 0
Count = 160

Pre-Shock NPV Ratio Distribution
Southeast

Descriptive Statistics
Median = 13.45
Mean = 15.43
Standard Deviation = 9.67
Skewness = 3.9
Kurtosis = 24.35
Minimum = -11.32
Count = 160

Post-Shock NPV Distribution
Southeast

Descriptive Statistics
Median = 12.26
Mean = 14.37
Standard Deviation = 9.63
Skewness = 4.06
Kurtosis = 25.59
Minimum = -11.99
Count = 160

Asset Duration Distribution
Southeast

Descriptive Statistics
Median = 1.15
Mean = 1.24
Standard Deviation = 0.59
Skewness = 0.54
Kurtosis = -0.09
Maximum = 2.98
Minimum = 0.052
Count = 160

Liabilities Duration Distribution
Southeast

Descriptive Statistics
Median = 1.18
Mean = 1.2
Standard Deviation = 0.43
Skewness = 0.8
Kurtosis = 1.82
Maximum = 2.99
Minimum = 0.052
Count = 160
Appendix D — Central Region

**Sensitivity Measure Distribution Central**

- **Descriptive Statistics**
  - Median = 70
  - Mean = 103
  - Standard Deviation = 96
  - Skewness = 1.67
  - Kurtosis = 3.34
  - Maximum = 587.814
  - Minimum = 0
  - Count = 232

**Pre-Shock NPV Ratio Distribution Central**

- **Descriptive Statistics**
  - Median = 12.84
  - Mean = 15.21
  - Standard Deviation = 9.94
  - Skewness = 5.55
  - Kurtosis = 36.89
  - Maximum = 91.877
  - Minimum = 5.418
  - Count = 232

**Post-Shock NPV Distribution Central**

- **Descriptive Statistics**
  - Median = 12.1
  - Mean = 14.18
  - Standard Deviation = 9.92
  - Skewness = 5.7
  - Kurtosis = 38.35
  - Maximum = 91.271
  - Minimum = 5.09
  - Count = 232

**Asset Duration Distribution Central**

- **Descriptive Statistics**
  - Median = 1.26
  - Mean = 1.32
  - Standard Deviation = 0.6
  - Skewness = 0.77
  - Kurtosis = 1.94
  - Maximum = 4.216
  - Minimum = 0.078
  - Count = 232

**Liabilities Duration Distribution Central**

- **Descriptive Statistics**
  - Median = 1.35
  - Mean = 1.33
  - Standard Deviation = 0.35
  - Skewness = -0.33
  - Kurtosis = 1.31
  - Maximum = 2.256
  - Minimum = 0.03
  - Count = 232
## Appendix F — Western Region

### Sensitivity Measure Distribution

#### Western

![Bar chart showing distribution of sensitivity measures with descriptive statistics]

- **Descriptive Statistics**
  - Median = 73
  - Mean = 108
  - Standard Deviation = 114
  - Skewness = 2.38
  - Kurtosis = 9.38
  - Maximum = 808.459
  - Minimum = 0
  - Count = 150

### Pre-Shock NPV Ratio Distribution

#### Western

![Bar chart showing distribution of pre-shock NPV ratios with descriptive statistics]

- **Descriptive Statistics**
  - Median = 13.51
  - Mean = 16.72
  - Standard Deviation = 12.56
  - Skewness = 4.07
  - Kurtosis = 18.42
  - Maximum = 84.233
  - Minimum = 3.681
  - Count = 150

### Post-Shock NPV Distribution

#### Western

![Bar chart showing distribution of post-shock NPV ratios with descriptive statistics]

- **Descriptive Statistics**
  - Median = 12.65
  - Mean = 15.64
  - Standard Deviation = 12.56
  - Skewness = 4.18
  - Kurtosis = 19.27
  - Maximum = 83.864
  - Minimum = 2.865
  - Count = 150

### Asset Duration Distribution

#### Western

![Bar chart showing distribution of asset durations with descriptive statistics]

- **Descriptive Statistics**
  - Median = 1.2
  - Mean = 1.25
  - Standard Deviation = 0.66
  - Skewness = 0.37
  - Kurtosis = 1.67
  - Maximum = 3.694
  - Minimum = -1.216
  - Count = 150

### Liabilities Duration Distribution

#### Western

![Bar chart showing distribution of liabilities durations with descriptive statistics]

- **Descriptive Statistics**
  - Median = 1.28
  - Mean = 1.28
  - Standard Deviation = 0.44
  - Skewness = 0.08
  - Kurtosis = 0.68
  - Maximum = 2.734
  - Minimum = 0.034
  - Count = 150