Third Quarter Changes in Interest Rates

U.S. Treasury rates declined across all maturities between the second and third quarter of 2009. Yields on the three-month note and two-year note decreased five basis points and 16 basis points, to 0.14% and 0.95%, respectively. Similarly, yields on the 10-year note and 30-year bond decreased 22 basis points and 29 basis points to 3.31% and 4.03%, respectively (Exhibit 1). Consistent with previous quarters, the Federal Reserve continued to hold the target Federal Funds rate within a range of 0-0.25% throughout the third quarter and reiterated its intention to keep interest rates low for an extended period. The Federal Reserve also continued to conduct quantitative easing operations, including the purchase of Treasury securities, agency mortgage-backed securities (MBS) and agency debt. These purchase programs served to keep interest rates low during the third quarter. As noted in the November FOMC meeting press release, the Federal Reserve plans to purchase a total of $1.25 trillion of agency MBS and $175 billion of agency debt by the end of the first quarter of 2010. The purchase of Treasury securities totaling $300 million was completed at the end of October.

Swap and LIBOR rates were also lower compared to the previous quarter (Exhibit 2). The willingness to accept credit risk continued to pull LIBOR rates lower, as the three-month LIBOR rate decreased 31 basis points to 0.29% and the six-month LIBOR rate decreased 48 basis points to 0.63%. Likewise, two-year and 10-year Swap rates declined 24 basis points and 31 basis points, to 1.30% and 3.44%, respectively, reflecting the market’s expectation for a flattening Treasury curve.
Due to the interest rate changes, the Treasury yield curve flattened slightly during the third quarter after steepening substantially in the second quarter. As evidence, the spread between the yield on the 10-year note and two-year note fell to 236 basis points in September from 242 basis points in June. Despite this flattening, yield curve steepness at quarter-end remained at historically high levels and well above its three-year average of 119 basis points. Although the steep yield curve is currently advantageous to most financial institutions, a change in monetary policy and/or a decline in market liquidity could have an adverse effect on institutions that are not actively managing their interest rate risk or liquidity risk exposure.

As expected in a slightly lower interest rate environment, the OTS NPV Model generated shorter effective durations for mortgages than in the previous quarter. Exhibit 3 shows the effective duration for a FNMA 5% coupon MBS decreased to 2.81 in September, down from 2.88 in June. Similarly, the industry’s median effective duration of assets decreased from 1.50 to 1.37, while the industry’s median effective duration of liabilities decreased from 1.43 to 1.38 (Exhibit 4). It should be noted, however, that the OTS NPV Model relies heavily on the refinance incentive implied by prevailing interest rates to produce estimates of future prepayment speeds and these...
estimates may not reflect the current actual rate of prepayments. Indeed, the ongoing market turmoil and its negative impact on the ability of mortgagors to refinance their mortgages has resulted in actual prepayment rates that are much slower than otherwise would be expected in an extremely low interest rate environment.

On the asset side of the balance sheet, the thrift industry has been moving towards holding a larger percentage of longer term, fixed rate mortgage assets. The percentage of total fixed-rate mortgage assets increased to 26.62% of total assets in the third quarter of 2009 from 24.96% of total assets in the third quarter of 2007, prior to significant market disruptions associated with the financial crisis. Similarly, the percentage of 30-year fixed-rate, single family mortgages increased to 10.92% of total assets in the third quarter of 2009, up from 8.52% in the third quarter of 2007. This shift in asset concentrations has also brought lower coupon rates to the industry’s fixed rate mortgage portfolio. For example, the weighted average coupon for 30-year, single family mortgage loans has decreased to 6.04% in the third quarter 2009 from 6.62% in the third quarter 2007. As interest rates begin to increase in the future, these assets will be characterized by longer average lives and larger durations. As a result, the overall interest rate sensitivity of thrifts with a positive effective duration gap will rise.

On the liability side of the balance sheet, the thrift industry has been moving towards using a larger percentage of non-maturity deposits to fund assets. The percentage of non-maturity deposits has increased to 38.6% of total assets in the third quarter of 2009, up from 30.2% of total assets in the third quarter of 2007. In general, non-maturity deposits represent a stable source of funding that reduces an institution’s sensitivity to rising interest rates. The intangible value associated with these deposits is derived from an institution’s customer relationship and represents the ability to lag market rate increases. Accordingly, it is important for an institution to fully understand its customer behavior. Without accurately identifying the retention rates associated with deposit balances or recognizing the customer behavior profile that is unique to each institution, thrifts run the risk of experiencing higher sensitivity levels when subjected to a rising interest rate environment.

NPV Model Results and Changes in the Industry’s Interest Rate Risk Profile

Industry-wide NPV ratios showed improvement in the third quarter. The industry’s median pre-shock NPV ratio increased from 12.56% in June to 12.93% in September, while the industry’s median post-shock NPV ratio increased from 11.40% in June to 11.97% in September (Exhibit 5). Given the narrowing in the industry’s median effective duration gap, median sensitivity for the thrift industry decreased slightly, falling from 94 basis points in June to 92 basis points in September (Exhibit 6).

From a supervisory perspective, the number of institutions with a “High” or “Significant” risk rating as defined by Thrift Bulletin 13a, decreased from 11 institutions in June to five institutions in September, while the number of institutions with a “Moderate” risk rating declined from 58 institutions in June to 57 institutions in September.
Additionally, the number of institutions with a sensitivity measure over 200 basis points decreased from 146 institutions in June to 125 institutions in September. These results point to an improved interest rate risk profile for the industry and largely result from the significant reduction in asset duration over the past several quarters. However, as credit conditions improve and interest rates begin to rise in the future, asset durations can be expected to increase, leading to an increase in the industry’s overall interest rate sensitivity.
Appendix A — All Thrifts

**Sensitivity Measure Distribution**

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<thead>
<tr>
<th>Basis Points</th>
<th>Percent of Thrifts</th>
</tr>
</thead>
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</tr>
<tr>
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<td>( )</td>
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<td>533</td>
<td>( )</td>
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</tbody>
</table>

**Descriptive Statistics**
- Median = 92
- Mean = 118
- Standard Deviation = 95
- Skewness = 1.75
- Kurtosis = 4.84
- Maximum = 698.412
- Minimum = 0
- Count = 730

---

**Pre-Shock NPV Ratio Distribution**

<table>
<thead>
<tr>
<th>NPV Ratio (%)</th>
<th>Percent of Thrifts</th>
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</thead>
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<td>26</td>
<td>( )</td>
</tr>
<tr>
<td>29</td>
<td>( )</td>
</tr>
</tbody>
</table>

**Descriptive Statistics**
- Median = 12.95
- Mean = 15.42
- Standard Deviation = 10.06
- Skewness = 4.71
- Kurtosis = 28.94
- Maximum = 95.407
- Minimum = 0.256
- Count = 730

---

**Post-Shock NPV Distribution**

<table>
<thead>
<tr>
<th>NPV Ratio (%)</th>
<th>Percent of Thrifts</th>
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</thead>
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<td>24</td>
<td>( )</td>
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<tr>
<td>27</td>
<td>( )</td>
</tr>
</tbody>
</table>

**Descriptive Statistics**
- Median = 11.97
- Mean = 14.25
- Standard Deviation = 10.06
- Skewness = 4.85
- Kurtosis = 30.28
- Maximum = 95.21
- Minimum = -6.061
- Count = 730

---

**Asset Duration Distribution**

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<th>Duration</th>
<th>Percent of Thrifts</th>
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<tr>
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<td>( )</td>
</tr>
<tr>
<td>1.25</td>
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<td>( )</td>
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<tr>
<td>3.75</td>
<td>( )</td>
</tr>
<tr>
<td>4.25</td>
<td>( )</td>
</tr>
</tbody>
</table>

**Descriptive Statistics**
- Median = 1.37
- Mean = 1.38
- Standard Deviation = 0.6
- Skewness = 0.09
- Kurtosis = 3.38
- Maximum = 3.587
- Minimum = -2.597
- Count = 730

---

**Liabilities Duration Distribution**

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percent of Thrifts</th>
</tr>
</thead>
<tbody>
<tr>
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<td>( )</td>
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<tr>
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<td>1.75</td>
<td>( )</td>
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<td>2.0</td>
<td>( )</td>
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<tr>
<td>2.25</td>
<td>( )</td>
</tr>
<tr>
<td>2.5</td>
<td>( )</td>
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</tbody>
</table>

**Descriptive Statistics**
- Median = 1.38
- Mean = 1.35
- Standard Deviation = 0.7
- Skewness = -7.75
- Kurtosis = 116.8
- Maximum = 5.812
- Minimum = -8.825
- Count = 730
Appendix B — Northeast Region

### Sensitivity Measure Distribution

**Northeast**

- Median = 127
- Mean = 148
- Standard Deviation = 89
- Skewness = 0.67
- Kurtosis = -0.26
- Maximum = 389.439
- Minimum = 5.049
- Count = 162

### Pre-Shock NPV Ratio Distribution

**Northeast**

- Median = 12.92
- Mean = 14.51
- Standard Deviation = 5.58
- Skewness = 2.18
- Kurtosis = 6.86
- Maximum = 44.039
- Minimum = 6.209
- Count = 162

### Post-Shock NPV Distribution

**Northeast**

- Median = 11.43
- Mean = 13.04
- Standard Deviation = 5.48
- Skewness = 2.2
- Kurtosis = 6.87
- Maximum = 41.305
- Minimum = 4.505
- Count = 162

### Asset Duration Distribution

**Northeast**

- Median = 1.6
- Mean = 1.59
- Standard Deviation = 0.54
- Skewness = -0.35
- Kurtosis = 0.55
- Maximum = 2.891
- Minimum = -0.175
- Count = 162

### Liabilities Duration Distribution

**Northeast**

- Median = 1.47
- Mean = 1.55
- Standard Deviation = 0.51
- Skewness = 3.93
- Kurtosis = 30.39
- Maximum = 5.812
- Minimum = 0.515
- Count = 162
Appendix C — Southeast Region

Sensitivity Measure Distribution
Southeast

Descriptive Statistics
Median = 79
Mean = 110
Standard Deviation = 107
Skewness = 5.93
Kurtosis = 2.14
Maximum = 631.681
Minimum = 0
Count = 170

Pre-Shock NPV Ratio Distribution
Southeast

Descriptive Statistics
Median = 12.9
Mean = 15.59
Standard Deviation = 10.2
Skewness = 3.99
Kurtosis = 22.98
Maximum = 87.64
Minimum = 0.256
Count = 170

Asset Duration Distribution
Southeast

Descriptive Statistics
Median = 1.24
Mean = 1.29
Standard Deviation = 0.6
Skewness = 1.25
Kurtosis = 2.8
Maximum = 3.987
Minimum = 0.209
Count = 170

Post-Shock NPV Distribution
Southeast

Descriptive Statistics
Median = 12.24
Mean = 14.49
Standard Deviation = 10.2
Skewness = 4.08
Kurtosis = 23.9
Maximum = 87.464
Minimum = -6.061
Count = 170

Liabilities Duration Distribution
Southeast

Descriptive Statistics
Median = 1.19
Mean = 1.09
Standard Deviation = 1.16
Skewness = -7.09
Kurtosis = 58.5
Maximum = 3.017
Minimum = -8.825
Count = 170
Appendix D — Central Region

Sensitivity Measure Distribution

Descriptive Statistics
- Median = 82
- Mean = 112
- Standard Deviation = 87
- Skewness = 2.08
- Kurtosis = 6.49
- Maximum = 633.6
- Minimum = 0
- Count = 239

Pre-Shock NPV Ratio Distribution

Descriptive Statistics
- Median = 12.79
- Mean = 15.12
- Standard Deviation = 9.85
- Skewness = 5.25
- Kurtosis = 34.32
- Maximum = 91.526
- Minimum = 4.624
- Count = 239

Post-Shock NPV Distribution

Descriptive Statistics
- Median = 11.84
- Mean = 14
- Standard Deviation = 9.84
- Skewness = 5.39
- Kurtosis = 35.77
- Maximum = 91.09
- Minimum = 3.876
- Count = 239

Asset Duration Distribution

Descriptive Statistics
- Median = 1.4
- Mean = 1.4
- Standard Deviation = 0.58
- Skewness = 0.6
- Kurtosis = 1.85
- Maximum = 3.49
- Minimum = -0.345
- Count = 239

Liabilities Duration Distribution

Descriptive Statistics
- Median = 1.43
- Mean = 1.42
- Standard Deviation = 0.38
- Skewness = -0.52
- Kurtosis = 1.49
- Maximum = 2.325
- Minimum = 0.026
- Count = 239
Appendix F — Western Region

Sensitivity Measure Distribution
Western

Descriptive Statistics
Median = 69
Mean = 104
Standard Deviation = 93
Skewness = 2.12
Kurtosis = 7.49
Maximum = 656.412
Minimum = 0
Count = 159

Pre-Shock NPV Ratio Distribution
Western

Descriptive Statistics
Median = 13.52
Mean = 16.63
Standard Deviation = 13.22
Skewness = 4.04
Kurtosis = 18.66
Maximum = 95.407
Minimum = 3.894
Count = 159

Post-Shock NPV Distribution
Western

Descriptive Statistics
Median = 12.26
Mean = 15.59
Standard Deviation = 13.24
Skewness = 4.15
Kurtosis = 19.41
Maximum = 95.21
Minimum = 2.833
Count = 159

Asset Duration Distribution
Western

Descriptive Statistics
Median = 1.24
Mean = 1.24
Standard Deviation = 0.61
Skewness = -1.18
Kurtosis = 8.97
Maximum = 2.884
Minimum = -2.597
Count = 159

Liabilities Duration Distribution
Western

Descriptive Statistics
Median = 1.36
Mean = 1.35
Standard Deviation = 0.46
Skewness = -0.02
Kurtosis = 0.84
Maximum = 2.854
Minimum = 0.135
Count = 159