NAIC National Association of Insurance Commissioners & The Center for Insurance Policy and Research

# Capital Markets Special Report

The **NAIC's Capital Markets Bureau** monitors developments in the capital markets globally and analyzes their potential impact on the investment portfolios of US insurance companies. A list of archived Capital Markets Bureau Special Reports is available via the **index**

**Potential for Volatility in U.S. Insurer Holdings of Residential Mortgage-Backed Securities**

As is well known and has been discussed in prior Capital Markets Special Reports, the downturn in home prices and concurrent increase in residential mortgage defaults beginning in 2007 led to dramatic drops in market values of residential mortgage-backed securities (RMBS). This reflected high levels of expected losses in those bonds. Substantial volatility in ratings from nationally recognized statistical rating organizations (NRSROs) also led the NAIC to reconsider its reliance on NRSROs for RMBS. Beginning with year-end 2009, in lieu of translating NRSRO ratings into NAIC designations, each individual RMBS holding in the U.S. insurance industry is modeled annually for expected losses and an expected recovery value is calculated. Each U.S. insurer determines the NAIC designation of each holding based on its book/adjusted carrying value (BACV) in comparison with the modeled expected recovery value.

Having now completed the third year under the new process, the new approach is well regarded for many reasons, the most important of which is the recognition that different carrying values mean a different risk profile for each holding and, therefore, a different level of investment risk. One question, and, therefore, one potential concern, is how much additional downside exists in the U.S. insurance industry's holdings of RMBS. If housing prices take another step down, if defaults take another jump up, how much additional downside exists in the U.S. insurance industry's portfolio of RMBS? The modeling process takes some of that risk into account by using a weighted average of five different economic scenarios. The economic scenarios are adopted by the Valuation of Securities (E) Task Force at the end of each year.

**Assumptions for Year-End 2011 Modeling of RMBS**

| | Probability | Timing to Trough | Peak to Trough Home Price Appreciation | Peak to 12/15 HPA |
|---|---|---|---|---|
| Most Aggressive | 5% | Q1 2011 | (33%) | 13% |
| Aggressive | 20% | Q1 2011 | (33%) | (5%) |
| Base Case | 55% | Q1 2012 | (35%) | (21%) |
| Conservative | 20% | Q3 2013 | (38%) | (35%) |
| Most Conservative | 5% | Q3 2022 | (59%) | (45%) |

However, in the current environment — which continues to be somewhat volatile — are all bonds equivalent in their risk profile? Are there bonds that carry an inordinate amount of downside risk if defaults and resulting losses on the underlying residential mortgages rise? Similarly, with a significant amount of RMBS valued at prices substantially below par, are there bonds with a relatively small amount of downside risk and a more than commensurate amount of upside potential. Using each of the five different economic scenarios employed by the NAIC, this Special Report focuses on these questions.

*Overall Modeling Results*

Across of the different insurer types, total RMBS exposure as of the end of 2011, based on BACV, was $123.2 billion. This is compared with a total par value of $151.5 billion for a weighted average price of $81.30. These holdings were spread across 18,459 unique CUSIPs that were modeled by the NAIC. Of that total, there were 5,872 CUSIPs that reported no losses, or an expected recovery value of 100, in each of the five scenarios. Because there are no expected losses even in the Most Conservative scenario, these bonds are not of any substantial interest in this particular analysis. Of the remaining 12,677 CUSIPs, there were 2,491 that reported an expected recovery value of par, or 100, in the Base Case, but some level of loss in either the Conservative scenario, Most Conservative scenario, or both. That leaves 10,480 bonds that reported an expected loss in the Base Case scenario, and likely more significant expected losses in the more conservative scenarios. These latter bonds would also likely have some upside potential in either the Aggressive or Most Aggressive scenarios, although the maximum expected recovery value is par, thereby limiting the upside potential. Table 1 below breaks down the total universe of RMBS modeled by the NAIC, with groupings based on a range of values reported in the Base Case.

**Table 1: Overall Expected Recovery Values***

| Base Case Groupings | Most Conservative | Conservative | Base Case | Aggressive | Most Aggressive | Number of CUSIPs |
|---|---|---|---|---|---|---|
| 95–100 | 95.30 | 98.22 | 99.66 | 99.94 | 99.96 | 10,187 |
| 80–95 | 75.92 | 82.34 | 88.12 | 94.57 | 96.36 | 2,743 |
| 70–80 | 62.18 | 68.94 | 75.09 | 84.76 | 88.21 | 1,248 |
| 60–70 | 51.01 | 57.89 | 65.59 | 79.41 | 83.37 | 747 |
| 50–60 | 39.16 | 45.64 | 55.39 | 74.11 | 79.14 | 424 |
| <50 | 11.29 | 12.89 | 15.25 | 29.37 | 38.75 | 3,110 |
| **Total** | **72.95** | **76.67** | **79.67** | **84.80** | **87.17** | **18,459** |

* Note that the totals in this table and the others in this report, unless otherwise noted, are simple averages and not weighted by the size of holdings.

Looking at these overall results, the profiles across each of the scenarios do not look unreasonable. For those bonds with a Base Case value of between 95 and 100, in the Most Conservative scenario, the average value drops to 95.30 vs. the average Base Case value of 99.66, or a difference of 4.36 points. This is compared with the potential upside of 99.96 in the Most Aggressive scenario. While there is not much upside in average value, this is not surprising because values are capped at 100. The comparison is more interesting in looking at one of the more heavily discounted groupings. For bonds with a Base Case value between 70 and 80, the average Base Case value in that group is 75.09. This is compared with the downside of 62.18 in the Most Conservative case and an upside of 88.21 in the Most Aggressive, differentials of down 12.91 points vs. up 13.12 points between the extreme cases. For the most distressed group, the differentials are down 3.96 and up 23.50, vs. the Base Case average of 15.25. The relatively simple explanation for this apparently attractive upside/downside profile is that these bonds have already suffered serious deterioration such that they cannot get much worse, whereas a reasonable improvement in the housing picture would translate into solid improvements in defaults and losses given default.

These are groupings of bonds in each category and a more detailed consideration is appropriate to find outliers within the groupings, specifically those with a less attractive upside/downside profile.

*Par Bonds*

To start out with, we focused on the group of bonds with Base Case expected recovery values of 100. These are bonds that are expected to return their full par value in what was considered the most likely economic scenario. There were a total of 2,491 bonds in this group out of the 12,971 bonds that were expected to experience a loss in at least one of the economic scenarios. We further broke out the subset of that group that also had an expected recovery value of 100 in the Conservative scenario. The two groups were then stratified based on the differential or loss in expected recovery value between the Base Case and the Most

Conservative case. These two groups exclude those bonds that reported no expected losses in any of the five scenarios, so the mitigating impact that those bonds would have had on the average outcomes has been eliminated.

**Table 2: Bonds with Expected Recovery Value of Par in Both Base Case and Conservative Case**

| Values in Most Conservative | Average of Most Conservative | Change from Base Case | Number of CUSIPs |
|---|---|---|---|
| 95–100 | 98.69 | (1.31%) | 974 |
| 80–95 | 89.64 | (10.36%) | 230 |
| 70–80 | 75.31 | (24.69%) | 21 |
| 60–70 | 66.54 | (33.46%) | 16 |
| 50–60 | 56.22 | (43.78%) | 6 |
| <50 | 37.95 | (62.05%) | 9 |
| **Total** | **95.59** | **(3.41%)** | **1,256** |

Because the bonds have an expected recovery value of par in the Base Case, there is also no upside in the more optimistic scenarios. The bonds can only recover par. In the first line of Table 2, which represents a majority of the bonds, there is some limited downside in the Most Conservative scenario. That is not surprising. There is also some additional downside risk for the next group of 230 bonds. What is potentially more concerning (and worth further consideration) is that 52 of the bonds in this group would experience a very steep drop, in some cases more than 60%, in their expected recovery value in the Most Conservative case, even though in the Base Case and the Conservative scenario, a full return of principal is expected. The cliff-like profile is usually related to what are termed “cuspy” bonds, often because they represent relatively thin credit tranches in a structure. They perform well up to a given level of defaults and losses, but once that level is exceeded, the negative impact is severe. In the cases where the result is due to the thinness of the credit tranche, a relatively small amount of additional realized losses in the RMBS pool equals the principal value of the tranche. There are also other credit structures that are leveraged to specifically create this profile based on the overall loss history of the RMBS pool. This risk profile is clearly different from those bonds represented at the top of the table that do not have that cliff-like profile. Although this subgroup represents only a small percentage of the U.S. insurance industry’s holdings, a question that should be asked is if these bonds should be treated in the same way, with the same risk-based capital and reserve requirements.

**Table 3: Bonds with Expected Recovery Value of Par in the Base Case**

| Values in Conservative | Average of Most Conservative | Change from Base Case | Change from Conservative | Average of Conservative | Change from Base Case | Number of CUSIPs |
|---|---|---|---|---|---|---|
| 95–100 | 92.21 | (7.79%) | (6.77%) | 98.91 | (1.19%) | 895 |
| 80–95 | 68.82 | (31.18%) | (23.58%) | 90.06 | (9.94%) | 259 |
| 70–80 | 42.87 | (37.13%) | (43.24%) | 75.53 | (24.47%) | 43 |
| 60–70 | 33.45 | (66.55%) | (49.38%) | 66.08 | (33.92%) | 16 |
| 50–60 | 31.49 | (68.51%) | (45.26%) | 57.53 | (42.47%) | 10 |
| <50 | 22.61 | (77.39%) | (39.07%) | 37.11 | (42.89%) | 12 |
| **Total** | **83.66** | **(16.34%)** | **(11.83%)** | **94.88** | **(5.12%)** | **1,235** |

Table 3 is similar to Table 2 except that, in these cases, the bonds are expected to incur a loss in principal in the Conservative scenario, as well as in the Most Conservative scenario. Similarly, a majority of the bonds suffer a relatively modest loss, an average of 1.19% in the Conservative case and 7.79% in the Most Conservative case. In the second line of the table, more than 27% of the bonds lost a relatively significant amount of principal in the Conservative

case and as much as an additional 20% of principal in the Most Conservative case. Out of the 1,235 bonds in this group, 38 have the cliff-like profile described earlier. Between these two groups, 90 bonds out of the total universe of 18,459 are potentially problematic in their valuation. That is less than 0.50% of the unique CUSIPs held by the U.S. insurance industry. Including the second group of bonds in Table 2 and Table 3 brings the total number of bonds to 579, or roughly 3% of the total universe of modeled RMBS.

Taking a somewhat more expansive view of bonds held by the U.S. insurance industry that would be considered relatively unimpaired under the Base Case assumptions, we combined the two groups in Table 2 and Table 3 with other bonds that had a reported expected recovery value of at least 95. The profile of this larger group of 4,405 bonds is detailed below in Table 4.

**Table 4: Bonds with Expected Recovery Values of 95 or Higher in the Base Case**

| Values in Most Conservative | Average of Most Conservative | Change from Base Case | Change from Conservative | Average of Conservative | Change from Base Case | Average of Base Case | Number of CUSIPs |
|---|---|---|---|---|---|---|---|
| 95–100 | 98.17 | (1.61%) | (1.45%) | 99.61 | (0.17%) | 99.78 | 1,989 |
| 80–95 | 90.16 | (8.56%) | (6.52%) | 96.45 | (2.18%) | 98.60 | 1,733 |
| 70–80 | 75.33 | (24.15%) | (18.08%) | 91.96 | (7.41%) | 99.32 | 243 |
| 60–70 | 65.37 | (34.04%) | (25.48%) | 87.72 | (11.49%) | 99.11 | 169 |
| 50–60 | 55.43 | (43.85%) | (30.53%) | 79.79 | (19.18%) | 98.72 | 111 |
| <50 | 35.33 | (64.36%) | (49.13%) | 69.45 | (29.93%) | 99.12 | 160 |
| **Total** | **89.14** | **(10.15%)** | **(7.04%)** | **95.89** | **(3.35%)** | **99.21** | **4,405** |

Focusing on this somewhat larger group of bonds held by the U.S. insurance industry presents at least one picture of the different risk profiles. If the total line at the bottom of Table 4 is used as being representative of an average level of downside risk, the first two lines in Table 4 include bonds that (1) are relatively unimpaired in the Base Case scenario; and (2) perform better than the average in both the Conservative and Most Conservative scenarios. The remaining bonds, which number 683 different CUSIPs, have a profile that appears to have a disproportionate amount of downside risk. While it is not unreasonable to assume full, or close to full, recovery of principal in these bonds as of year-end 2011, the likelihood for a significant impairment not only exists, based on the two lower sets of assumptions, but extreme levels of impairments are possible. Because all of the bonds in this group have limited upside because their current expected recovery is approximately par in the Base Case, a reasonable question is whether the additional downside volatility has been adequately accounted for.

*Discounted Bonds*

So far, we have considered 5,488 bonds with no losses in any scenario and 4,405 bonds with an expected loss in at least one scenario, but either a full, or near full, expected recovery of principal in the Base Case. That leaves 8,272 bonds that reported a significant expected loss, or an expected recovery value of significantly less than par, in the Base Case. While our analysis of this group of bonds was similar in that we considered the potential downside risk in expected recovery values if market conditions took a turn for the worse, there was also an additional factor in that these bonds also represented some upside opportunities. With expected recovery values of significantly less than par in the Base Case, if market conditions were to improve, along the lines of the Aggressive and Most Aggressive assumptions, expected recovery values could likewise improve. Therefore, besides the downside risk, another consideration is the relative volatility between that and the potential for upside.

At the extreme end, are the distressed values mentioned earlier in this report. There are 3,110 bonds with an expected recovery value of less than 50, with an average value of 15.25. In the Most Conservative case, the expected recovery value would drop 3.96 points, or 25.97%. While that represents a significant amount of downside in those holdings, if the market environment improves and the Most Aggressive assumptions come to pass as being more appropriate, the

average expected recovery values would improve 23.50 points, or 154.10%. For this group of bonds, the ratio of upside to downside is 5.93 times. At the time that the assumptions were adopted by the Valuation of Securities (E) Task Force, both the Most Conservative and Most Aggressive scenarios were deemed to be equally probable at 5%. This particular profile is also applicable for the scenarios that are not as extreme. For the Conservative and Aggressive scenarios, both of which were assumed to have a 20% probability, the downside was 2.36 points and upside was 14.12 points, or a ratio of 5.98 times.

In an already difficult market for non-agency RMBS, investing in truly distressed securities carries with it an additional set of issues, including access to information and liquidity. Therefore, while the upside and downside scenarios suggest an attractive risk profile, this could be offset by other specific market conditions.

There are four other groupings of bonds, ranging in expected recovery values from 50 to 95. Table 5 presents the average results for each group and the volatility in expected recovery values for the different scenarios.

**Table 5: Discounted Bonds in the Base Case**

| Base Case Grouping | Most Conservative (Change from Base Case) | Conservative (Change from Base Case) | Base Case Average Value | Aggressive (Change from Base Case) | Most Aggressive (Change from Base Case) | Number of CUSIPs |
|---|---|---|---|---|---|---|
| 80–95 | (13.84%) | (6.56%) | 88.12 | 7.32% | 9.35% | 2,743 |
| 70–80 | (17.19%) | (8.19%) | 75.09 | 12.88% | 17.47% | 1,248 |
| 60–70 | (22.23%) | (11.74%) | 65.59 | 21.07% | 27.12% | 747 |
| 50–60 | (29.30%) | (17.60%) | 55.39 | 33.80% | 42.88% | 424 |

There are two readily apparent conclusions in considering the potential volatility between the different scenarios for each of the groupings in Table 5. First, there is an increasing level of volatility as we move down the table in Base Case results. For the grouping of bonds with Base Case values between 80 and 95, the downside volatility in the Most Conservative scenario is 13.84%, whereas in the group between 50 and 60, the average downside is 29.30%. Second, the risk profile in downside vs. upside also improves with lower Base Case values. In the first instance, there is a modestly negative relationship, as the ratio is 0.68 of Most Aggressive to Most Conservative, and 1.12 for the less extreme assumptions. In the lowest tranche, the ratios are 1.46 and 1.92, respectively.

While the risk profile of the different groups in Table 5 does not reveal any potential issues, a more detailed breakdown within each group did highlight additional subgroups where the upside/downside profile was less favorable. In these cases, the profile was not as negative as the situations described earlier, primarily because there was some upside potential, as the Base Case values were significantly less than par. In that sense, they did not have the cliff-like characteristics.

*Aggregate Portfolio Values*

Valuation of RMBS for U.S. insurance companies is governed by the *Statement of Statutory Accounting Principles (SSAP) No. 43R—Loan-Backed and Structured Securities* (SSAP No. 43R). For insurers that maintain an asset valuation reserve (AVR), RMBS are reported at amortized cost, except for those with a designation of NAIC 6, which are reported at the lower of amortized cost or fair value. For insurers that do not maintain an AVR, only RMBS with designations of NAIC 1 or NAIC 2 are reported at amortized cost. If the present value of the cash flows expected to be collected is less than the amortized cost, an other than temporary impairment (OTTI) will be considered to have occurred and the amount of the OTTI will be recognized as a realized loss. The previous amortized cost basis less the OTTI recognized as a realized loss will become the new amortized costs basis for the investment.

Table 6 compares the BACV of RMBS modeled with the aggregate value of those holdings using the expected recovery values resulting from each of the five scenarios. It should be noted that, while the process the NAIC goes through in calculating expected recovery values for each individual CUSIP is similar to the guidance under SSAP No. 43R, it is not exactly the same. U.S. insurers also are expected to apply their own investment judgment as to the appropriate assumptions that should be used in the assessment and are not required to use the same assumptions as those adopted by the Valuation of Securities (E) Task Force for modeling purposes. The modeling done by the NAIC is not intended for valuation purposes, but to provide a guide for where losses might be expected to occur depending on different economic scenarios. As noted earlier, these expectations are then used in conjunction with the insurer's current carrying value to determine an NAIC designation, which is then mapped to a risk-based capital factor.

**Table 6: Aggregate Portfolio Values**

| ($millions) | Total | Life | Property | Health | Title | Fraternal |
|---|---|---|---|---|---|---|
| Par Value | 151,516.4 | 126,366.3 | 21,596.6 | 789.1 | 3.4 | 2,761.0 |
| BACV | 123,169.9 | 104,277.7 | 15,764.0 | 608.6 | 1.4 | 2,518.2 |
| BACV/Par Value | 81.3% | 82.5% | 73.0% | 77.1% | 40.3% | 91.2% |
| Most Aggressive | 138,481.0 | 115,706.6 | 19,437.3 | 747.1 | 2.5 | 2,587.6 |
| Aggressive | 135,483.7 | 113,188.5 | 19,015.9 | 735.8 | 2.3 | 2,541.1 |
| Base Case | 128,620.6 | 107,441.7 | 18,033.2 | 704.3 | 2.1 | 2,439.2 |
| Conservative | 123,751.4 | 103,602.5 | 17,094.1 | 684.2 | 2.0 | 2,368.6 |
| Most Conservative | 117,660.3 | 98,497.0 | 16,238.1 | 656.5 | 1.9 | 2,266.8 |

These are aggregate values for the overall portfolio and the comparisons will vary from bond to bond, as well as with different groupings of bonds. However, it is worth noting that the BACV as of year-end 2011 for the industry as a whole was less than the aggregate value of holdings in the Base Case. This results from at least two factors. First, the modeling results do not in any way reflect market values. In particular, the modeling calculation uses the original issue yield as a discount rate for cash flows, not current market rates. This will impact purchases of bonds at significantly discounted values and bonds that have been reported at fair value and not amortized cost. Second, to the extent that the performance of bonds recovers, the improvement in expected recoveries is generally not reflected until the bond is sold.

**Table 6a: Differences in Aggregate Portfolio Values vs. BACV**

| | Total | Life | Property | Health | Title | Fraternal |
|---|---|---|---|---|---|---|
| Most Aggressive | $15,311.1 | $11,428.9 | $3,673.3 | $138.5 | $1.1 | $69.4 |
| | 12.3% | 11.0% | 23.3% | 22.8% | 78.6% | 2.8% |
| Aggressive | $12,313.8 | $8,910.0 | $3,251.9 | $127.2 | $0.9 | $22.9 |
| | 10.0% | 8.5% | 20.6% | 20.9% | 64.3% | 0.9% |
| Base Case | $5,450.7 | $3,164.0 | $2,269.2 | $95.7 | $0.7 | ($79.0) |
| | 4.4% | 3.0% | 14.4% | 15.7% | 50.0% | (3.1%) |
| Conservative | $581.5 | ($675.2) | $1,330.1 | $75.6 | $0.6 | ($149.6) |
| | 0.5% | (0.6%) | 8.4% | 12.4% | 42.9% | (5.9%) |
| Most Conservative | ($5,509.6) | ($5,780.7) | $474.1 | $47.9 | $0.5 | ($251.4) |
| | (4.5%) | (5.5%) | 3.0% | 7.9% | 35.7% | (10.0%) |

Table 6a indicates a relatively negative profile in values for fraternal insurers, where the aggregate BACV exceeds the aggregate of values in the Base Case. However, the greater focus should be on life insurers, given their overall larger exposure. In the case of life insurers, there is a small 3.0% cushion, on an aggregate basis, between BACV and Base Case. The relatively simple analysis would indicate that, if market conditions worsen, and the Most Conservative assumptions are more indicative of actual performance, there is downside risk of

$5.5 billion in additional impairments for those exposures held by the U.S. insurance industry as of year-end 2011. Those impairments would be in addition to the impairments taken by the U.S. insurance industry in 2009 ($15.0 billion), 2010 ($4.2 billion) and 2011 ($3.1 billion). On the other hand, the upside potential, in the Aggressive and Most Aggressive scenarios, is also substantial. While these would generally only be realized upon a sale of the bonds, the potential gains in the Most Aggressive scenario total $15.3 billion across the industry. This potential can, in large part, be attributed to fair or conservative valuations in this relatively distressed asset class.

**Table 6b: Percentage Change in Aggregate Valuation in Comparison with Base Case**

| | Total | Life | Property | Health | Title | Fraternal |
|---|---|---|---|---|---|---|
| Most Aggressive | 6.5% | 6.5% | 6.5% | 5.4% | 10.8% | 5.4% |
| Aggressive | 4.5% | 4.5% | 4.5% | 4.0% | 7.1% | 3.7% |
| Conservative | (3.2%) | (3.0%) | (4.3%) | (2.5%) | (3.1%) | (2.6%) |
| Most Conservative | (7.2%) | (7.1%) | (8.3%) | (6.1%) | (7.3%) | (6.2%) |

The fair to conservative valuations are an important factor in considering the industry's risk profile between the different sets of assumptions. Generally, the upside/downside profile for the industry's holdings in the two more extreme scenarios is modestly negative, as there is more downside in the Most Conservative scenario than upside in the Most Aggressive scenarios. The relationship is a positive one in the less extreme scenarios where the ratio is greater than one times for all of the insurer types and 1.41 for the industry overall.

*Conclusion*

While the intended purpose of the NAIC's modeling of RMBS holdings of the U.S. insurance industry is to align expected recovery values with carrying values, and to use that comparison as a basis for assigning NAIC designations, which are then mapped to risk-based capital factors, analyzing the results for each of the five different scenarios employed in the modeling provides some additional information as to where there might be vulnerabilities and the potential for additional volatility.

Overall, aggregate valuations appear to be fair to modestly conservative, based on the assumptions employed for year-end 2011. That assessment is across the entire industry's exposure and is not necessarily reflective of either individual bond valuations or the portfolio valuations from insurer to insurer.

Although it is a relatively small percentage of the industry's holdings, there are bonds within the group of 18,459 that were modeled by the NAIC that have profiles that are potentially problematic. These bonds demonstrate a substantial amount of downside risk if the market environment turns negative relative to those assumptions used in the year-end modeling, without a significant amount of upside potential. Where those individual holdings are valued by their respective owners is a critical consideration. Notwithstanding that, an issue worth considering is whether the current framework properly addresses the additional volatility that is represented in those securities. The current formula applies the same weighting and approach to all RMBS, regardless of their volatility characteristics.

The non-agency RMBS market continues to be a difficult environment and subject to a number of concerns. The situation will continue to evolve and will continue to require careful scrutiny. This analysis is the first part in a series of analysis that the Capital Markets Bureau is planning with annual statement information recently received from U.S. insurers.

| April 9, 2012<br>Major Insurer Share Prices | | | Change % | | | Prior | | |
|---|---|---|---|---|---|---|---|---|
| | | Close | Week | QTD | YTD | Week | Quarter | Year |
| Life | Aflac | $43.68 | (5.8) | 1.0 | 1.0 | $46.38 | $43.26 | $43.26 |
| | Ameriprise | 54.58 | (5.4) | 10.0 | 10.0 | 57.72 | 49.64 | 49.64 |
| | Genworth | 7.68 | (8.5) | 17.3 | 17.3 | 8.39 | 6.55 | 6.55 |
| | Lincoln | 24.51 | (7.9) | 26.2 | 26.2 | 26.60 | 19.42 | 19.42 |
| | MetLife | 35.80 | (5.9) | 14.8 | 14.8 | 38.05 | 31.18 | 31.18 |
| | Principal | 28.29 | (5.3) | 15.0 | 15.0 | 29.87 | 24.60 | 24.60 |
| | Protective | 28.43 | (5.6) | 26.0 | 26.0 | 30.12 | 22.56 | 22.56 |
| | Prudential | 61.23 | (5.0) | 22.2 | 22.2 | 64.47 | 50.12 | 50.12 |
| | UNUM | 23.51 | (4.3) | 11.6 | 11.6 | 24.55 | 21.07 | 21.07 |
| PC | ACE | $72.34 | (2.6) | 3.2 | 3.2 | $74.30 | $70.12 | $70.12 |
| | Axis Capital | 33.51 | 0.7 | 4.8 | 4.8 | 33.29 | 31.96 | 31.96 |
| | Allstate | 32.43 | (2.8) | 18.3 | 18.3 | 33.35 | 27.41 | 27.41 |
| | Arch Capital | 37.43 | 0.1 | 0.5 | 0.5 | 37.38 | 37.23 | 37.23 |
| | Cincinnati | 33.68 | (3.3) | 10.6 | 10.6 | 34.82 | 30.46 | 30.46 |
| | Chubb | 69.55 | (0.4) | 0.5 | 0.5 | 69.79 | 69.22 | 69.22 |
| | Everest Re | 92.99 | (0.6) | 10.6 | 10.6 | 93.53 | 84.09 | 84.09 |
| | Progressive | 22.89 | (1.8) | 17.3 | 17.3 | 23.31 | 19.51 | 19.51 |
| | Travelers | 58.23 | (1.9) | (1.6) | (1.6) | 59.37 | 59.17 | 59.17 |
| | WR Berkley | 36.24 | (0.5) | 5.4 | 5.4 | 36.44 | 34.39 | 34.39 |
| | XL | 21.33 | (2.5) | 7.9 | 7.9 | 21.88 | 19.77 | 19.77 |
| Other | AON | $48.08 | (2.3) | 2.7 | 2.7 | $49.19 | $46.80 | $46.80 |
| | AIG | 31.99 | 2.5 | 37.9 | 37.9 | 31.21 | 23.20 | 23.20 |
| | Assurant | 38.79 | (4.4) | (5.5) | (5.5) | 40.57 | 41.06 | 41.06 |
| | Fidelity National | 18.02 | (0.3) | 13.1 | 13.1 | 18.07 | 15.93 | 15.93 |
| | Hartford | 20.44 | (6.8) | 25.8 | 25.8 | 21.93 | 16.25 | 16.25 |
| | Marsh | 31.91 | (2.8) | 0.9 | 0.9 | 32.82 | 31.62 | 31.62 |
| Health | Aetna | $48.80 | (2.7) | 15.7 | 15.7 | $50.15 | $42.19 | $42.19 |
| | Cigna | 47.99 | (2.8) | 14.3 | 14.3 | 49.39 | 42.00 | 42.00 |
| | Humana | 89.39 | (2.5) | 2.0 | 2.0 | 91.73 | 87.61 | 87.61 |
| | United | 58.23 | (1.4) | 14.9 | 14.9 | 59.06 | 50.68 | 50.68 |
| | WellPoint | 70.64 | (3.2) | 6.6 | 6.6 | 73.01 | 66.25 | 66.25 |
| Monoline | Assured | $15.17 | (7.9) | 15.4 | 15.4 | $16.47 | $13.14 | $13.14 |
| | MBIA | 9.40 | (6.7) | (18.9) | (18.9) | 10.08 | 11.59 | 11.59 |
| | MGIC | 4.49 | (11.4) | 20.4 | 20.4 | 5.07 | 3.73 | 3.73 |
| | Radian | 3.66 | (16.1) | 56.4 | 56.4 | 4.36 | 2.34 | 2.34 |
| | XL Capital | 21.33 | (2.5) | 7.9 | 7.9 | 21.88 | 19.77 | 19.77 |

| April 9, 2012<br>Major Market Variables | | | Change % | | | Prior | | |
|---|---|---|---|---|---|---|---|---|
| | | Close | Week | QTD | YTD | Week | Quarter | Year |
| Dow Jones Ind | | 12,929.59 | (2.5) | 5.8 | 5.8 | 13,264.49 | 12,217.56 | 12,217.56 |
| S&P 500 | | 1,382.20 | (2.6) | 9.9 | 9.9 | 1,418.90 | 1,257.60 | 1,257.60 |
| S&P Financial | | 205.81 | (4.1) | 17.5 | 17.5 | 214.51 | 175.23 | 175.23 |
| S&P Insurance | | 184.10 | (3.3) | 8.2 | 8.2 | 190.38 | 170.17 | 170.17 |
| US Dollar $ | | | Change % | | | Prior | | |
| | / Euro | $1.31 | (1.6) | 1.2 | 1.2 | $1.33 | $1.30 | $1.30 |
| | / Crude Oil bbl | 102.36 | (2.7) | 3.6 | 3.6 | 105.22 | 98.83 | 98.83 |
| | / Gold oz | 1,642.50 | (2.0) | 4.8 | 4.8 | 1,676.40 | 1,566.80 | 1,566.80 |
| Treasury Ylds % | | % | Change | | | % | % | % |
| | 1 Year | 0.19 | 0.02 | 0.08 | 0.08 | 0.17 | 0.11 | 0.11 |
| | 10 Year | 2.04 | (0.14) | 0.17 | 0.17 | 2.18 | 1.88 | 1.88 |
| | 30 Year | 3.19 | (0.14) | 0.30 | 0.30 | 3.33 | 2.90 | 2.90 |
| Corp Credit Spreads -bp | | | Change % | | | Prior | | |
| | CDX.IG | 81.29 | 1.1 | (28.6) | (28.6) | 80.39 | 113.83 | 113.83 |

**April 9, 2012**

**Major Insurer Bond Yields**

| | | | | Weekly Change | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Price | | | Spread | |
| | Company | Coupon | Maturity | Current | Change | Yield | B.P. | Change |
| Life | Aflac | 8.500% | 5/15/2019 | $131.96 | $1.06 | 3.39% | 188 | 2 |
| | Ameriprise | 5.300% | 3/15/2020 | $111.31 | $1.20 | 3.64% | 194 | (3) |
| | Genworth | 6.515% | 5/15/2018 | $103.68 | $0.26 | 5.79% | 457 | 8 |
| | Lincoln National | 8.750% | 7/15/2019 | $127.60 | $0.26 | 4.27% | 272 | 9 |
| | MassMutual | 8.875% | 6/15/2039 | $144.07 | $2.16 | 5.67% | 255 | 1 |
| | MetLife | 4.750% | 2/15/2021 | $110.20 | ($0.02) | 3.40% | 151 | 11 |
| | Mutual of Omaha | 6.800% | 6/15/2036 | $109.60 | $2.18 | 6.04% | 311 | (3) |
| | New York Life | 6.750% | 11/15/2039 | $128.71 | $2.16 | 4.85% | 175 | 2 |
| | Northwestern Mutual | 6.063% | 3/15/2040 | $120.50 | $2.32 | 4.73% | 159 | 0 |
| | Pacific Life | 9.250% | 6/15/2039 | $129.57 | $1.66 | 6.84% | 374 | 7 |
| | Principal | 6.050% | 10/15/2036 | $108.53 | $1.48 | 5.42% | 243 | 5 |
| | Prudential | 4.500% | 11/15/2020 | $107.17 | $0.47 | 3.53% | 169 | 6 |
| | TIAA | 6.850% | 12/15/2039 | $126.42 | $1.75 | 5.06% | 194 | 4 |
| P&C | ACE INA | 5.900% | 6/15/2019 | $121.23 | $1.19 | 2.63% | 110 | (0) |
| | Allstate | 7.450% | 5/15/2019 | $126.74 | $1.03 | 3.21% | 173 | 3 |
| | American Financial | 9.875% | 6/15/2019 | $126.00 | $0.61 | 5.45% | 388 | 5 |
| | Berkshire Hathaway | 5.400% | 5/15/2018 | $118.52 | $0.32 | 2.14% | 87 | 6 |
| | Travelers | 3.900% | 11/15/2020 | $109.08 | $1.33 | 2.70% | 90 | (4) |
| | XL Group | 6.250% | 5/15/2027 | $104.92 | $1.05 | 5.76% | 333 | 2 |
| Other | AON | 5.000% | 9/15/2020 | $111.19 | $0.85 | 3.46% | 167 | 4 |
| | AIG | 5.850% | 1/15/2018 | $109.34 | $0.41 | 4.02% | 288 | 7 |
| | Fidelity National | 7.875% | 7/15/2020 | $110.94 | ($0.31) | 6.16% | 463 | 11 |
| | Hartford | 5.500% | 3/15/2020 | $105.68 | ($0.66) | 4.64% | 290 | 26 |
| | Marsh | 9.250% | 4/15/2019 | $133.62 | $0.66 | 3.75% | 222 | 3 |
| | Nationwide | 9.375% | 8/15/1939 | $127.39 | $1.20 | 7.09% | 398 | 5 |
| Health | Aetna | 3.950% | 9/15/2020 | $106.78 | $0.95 | 3.03% | 125 | 0 |
| | CIGNA | 5.125% | 6/15/2020 | $111.42 | $0.94 | 3.50% | 176 | 1 |
| | United Healthcare | 3.875% | 10/15/2020 | $107.08 | $0.98 | 2.93% | 116 | 1 |
| | Wellpoint | 4.350% | 8/15/2020 | $110.12 | $1.44 | 2.97% | 122 | (3) |

Questions and comments are always welcome. Please contact the Capital Markets Bureau at CapitalMarkets@naic.org.