Industry Response to the Milliman Reports

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“We would caution against drawing any strong conclusions...” (pg. 28)

On September 24, 2009, RMA announced the release of two studies prepared by Milliman, Inc. which analyze the reasonable rate of return for crop insurers participating in the Federal crop insurance program as well as the historical rate of return for those companies. The purpose for these studies is to aid in this year’s Standard Reinsurance Agreement (SRA) discussions between RMA and the participating insurance companies that deliver the Federal crop insurance program to American farmers and ranchers.

The crop insurance industry asserts these reports should not be used in any meaningful way to inform Congress or the Administration about the level or adequacy of the rate of return for the industry. We have a host of concerns with the analyses similar in nature to those expressed by the authors of the Milliman studies, who express caveats about the data and assumptions and caution against drawing any strong conclusions throughout the two reports.

While the studies evidence a high degree of technical proficiency, the conclusions can only be as reliable as the data, methodology, and assumptions being used. Without access to more complete documentation (only a portion of the documentation has been released publicly), our analysis of the work performed by Milliman is somewhat limited. Nevertheless, the released portions leave considerable doubt about the usefulness of the two reports. Below we highlight some of our major concerns with the data and assumptions used in the reports.

1. **2008 numbers used are out-dated and overstate returns for 2008 by over 100 percent**

   In its analysis of the historical rate of return, Milliman uses RMA data from February 2009. This severely overstates the net underwriting gain for the 2008 reinsurance year. We estimate that Milliman uses an underwriting gain of almost $2.3 billion for reinsurance year 2008 (based on Table 8 of the historical report). This is more than twice the underwriting gain figure of $1.1 billion reported by RMA in late September 2009. Once this correction is applied, it reduces the average historical rate of return shown for the 1989-2008 period by 0.5 percentage points.

2. **The time period analyzed doesn’t recognize the catastrophic potential of crop insurance**

   Milliman includes experience from 1989 through 2008 in its analysis of the historical rate of return. Only one year with catastrophic loss experience, 1993, is included in these results. Milliman itself notes that the results of its study are “quite sensitive to the occurrence of catastrophic years in the sample period. For example, if there had been a second catastrophe year equivalent to 1993 in this sample period, the historical return would have been approximately 15.6%.” Milliman notes elsewhere: “We would caution against drawing any strong conclusions on the adequacy or excessiveness of the historical returns based on a sample of twenty years of data, in light of the fact that only one of those years is a catastrophe year.” With the inclusion of a second catastrophe year similar to 1993, the historical rate of return in the Milliman study would have declined by 1.5 percentage points, to 15.6%. The report fails to note that the program has experienced at least two additional catastrophe years in the years immediately preceding those considered by Milliman, in 1983 and 1988. In our view, the catastrophic potential of the program is considerably greater than the amount reflected in the Milliman results.

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1 Historical Rate of Return Analysis, page 35
2 Historical Rate of Return Analysis, page 28
3. **Administrative and Operating payments no longer equal or exceed the cost of delivering the program**

The Federal crop insurance program makes payments on behalf of farmers to insurance companies to deliver the program (administrative and operating (A&O) payments). As a percentage of gross premiums, the A&O reimbursement has dropped sharply since the early 1990’s. As a result the A&O payment has been insufficient to cover the operating expenses of participating insurers in each of the past twelve years. Despite this, the Milliman study “does not include an evaluation of the expenses associated with delivering MPCI coverage or a comparison of those costs with the A&O subsidy.” Instead Milliman has “chosen to report historical profitability calculations with the assumption that the A&O subsidy exactly compensates insurers for their expenses.” Milliman chooses to disregard the A&O deficit in evaluating the historical rate of return for the crop insurance industry. According to the Grant Thornton study, the average deficit has been 3.1% of premium over the 1992 to 2008 period, with 1.6% for 2008 alone. The A&O deficit is a real cost to insurance providers and needs to be included in any evaluation of the profitability of the crop insurance industry.

4. **Private reinsurance costs are expenses too**

Each year, insurance companies participating in the Federal crop insurance program must demonstrate that they have sufficient capital to meet the stringent financial requirements imposed by Federal regulations. In order to meet these standards, participating insurers arrange reinsurance agreements with reinsurance companies. Reinsurance imposes a real and significant cost on the companies participating in the program, but these costs are not explicitly recognized by the Milliman study. This is confirmed directly by the report, which notes “the purchase of reinsurance will result in a net cost to the primary insurer” and adds “to the extent that reinsurance imposes a net cost on the primary insurer, and we have failed to consider private sector reinsurance in the analysis of profitability, we have likely overstated the rate of return.”

5. **2008 Farm Bill cuts are not included**

The 2008 Farm Bill reduced A&O and loss adjustment expense reimbursements to participating insurers by an estimated 2.7 percentage points. This reduction was implemented for the 2009 reinsurance year and is not considered in the historical rate of return developed by Milliman.

Starting with calendar year 2012, the 2008 Farm Bill delays the payment of A&O reimbursements and underwriting gains by several months. This type of change would not be captured in a report of historical rates of return, but it has a real financial impact on the insurers participating in the Federal crop insurance program. The impact of the delay is equivalent to approximately 1.5% of retained premium.

6. **Historical rates of return are not appropriate measures of the profitability of the current SRA**

The Milliman study measures historical results for the Federal crop insurance program. However, the design of the study prevents it from being used to evaluate the future performance of the program.

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3 Grant Thornton, Federal Crop Insurance Program Profitability and Effectiveness analysis, 2009 Update
4 Ibid
5 Historical Rate of Return Analysis, page 11
6 Historical Rate of Return Analysis, page 11
7 Grant Thornton, Federal Crop Insurance Program Profitability and Effectiveness Analysis, 2009 Update
8 Historical Rate of Return Analysis, page 26
9 Ibid
10 National Crop Insurance Services, Inc., internal estimate
11 Ibid
An example of this is found in the discussion of the frequency of catastrophe years. The Milliman report recognizes that historical performance may not be a reliable indicator of future results and notes that the inclusion of one additional catastrophe year similar to 1993 would have reduced the historical rate of return by 1.5 percentage points. Another illustration is the 2008 Farm Bill. The changes implemented by the Farm Bill affect the future financial performance of the program but are not reflected in the report. Impacts of other major program revisions are also not considered. For example, rates and the reinsurance provisions of the SRA have changed substantially over time, and new forms of coverage such as Revenue protection, area plans, and CAT coverage have been introduced. Without accounting for these changes, the Milliman results represent only the historical performance of the program but not how the program is expected to perform in future years.

Due to the complexity of the Milliman methodology, we have not attempted to evaluate the total impact of the items noted above on the historical rate of return shown in their report. A quick review of the items suggests that their cumulative effect would reduce the historical rate of return by 5 to 8 percentage points. Taking these into consideration, the actual rate of return for the industry would be below the reasonable rate of return estimated by Milliman.

One final point to consider when evaluating the Milliman study is that Milliman applies a regulated utility methodology to insurance pricing. While the models used in the study may be appropriate for regulatory use in the utility industry where utilities have local monopolies on energy production and have measurable equity and stable earnings growth, they may not be appropriate for multiline insurance companies and are clearly not applicable to a single line crop insurance industry. We concur with the authors of the Milliman report who express “caution against drawing any strong conclusion on the adequacy or excessiveness of the historical returns” based on this study.

References


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12 *Historical Rate of Return Analysis*, page 28