



AMERICAN ACADEMY *of* ACTUARIES

To: Elise Liebers, Chair, NAIC P&C RBC Working Group
From: Ralph Blanchard, Chair, AAA P&C RBC Task Force
Date: March 3, 1998
Subject: Status of AAA P&C RBC Task Force projects - March 3, 1998.

Our task force is working on the following projects:

Evaluation of the P&C RBC formula from 1994 to 1996.

False Positives (RBC ratio below 2.0, but company rated secure by rating agencies).

False Negatives (RBC ratio above 2.0, but company rated vulnerable by rating agencies).

Ratio Stability (RBC ratio unstable over time).

Liquidity risk

Consistency with Life, MCO formula for Health insurers.

Below is the status of these projects as of March 3, 1998.

1. **False Positives**

This project is essentially completed, and is just awaiting committee sign-off on the final report. The apparent conclusion is that false positives have been very rare to-date, with no changes to the RBC formula indicated based on this issue. (This does not imply that other issues won't indicate a possible need to modify the current formula.)

The subgroup working on this looked at those companies from 1994 to 1996 with:

- . RBC ratios below 2.0, AND
- . "Secure" ratings from both A.M. Best (B+ or better) and Standard & Poor's (BBB or better)

No false positives were found in 1994, one was found in 1995, and four were found in 1996. The most common reasons for false positives were non-tabular discount greater than statutory surplus, and a concentration in a limited number of lines with high RBC charges.

2. **False Negatives.**

This project is close to completion. A final report can be expected by the June NAIC meeting.

The final product will likely include a list of issues that lead to "vulnerable" ratings that are not generally quantified by the RBC formula. It is not yet apparent whether or not some of these should be considered in a RBC formula. This question will be a major part of the Academy task force's discussions between now and the June meeting, and our reaction probably will be included in our final report.

As a preview to the final report, the most common reasons found for a “vulnerable” rating on a “false negative” company are:

- . Negative or Volatile Operating Returns.
- . Reserve Adequacy concerns.

NOTE: A false negative was defined as a company (from 1994 to 1996) with an RBC ratio above 2.0, and a “vulnerable” rating from A.M. Best and Standard & Poors. Vulnerable was initially defined as “B” or below for A.M. Best, and “BB” or below for S&P. In later work the “vulnerable” cutoff was modified to “B-“ or below by A.M. Best and “B” or below by S&P, and the RBC cutoff raised to 3.0. This more restrictive criterion resulted in 32 companies labeled as false negatives.

3. **Ratio Stability**

This project is the farthest from completion of all our projects, due to problems in narrowing the scope and in resource conflicts.

Our work to-date has involved grouping companies’ RBC ratios into 7 levels, and then observing the number of levels a company’s ratio jumps (or drops) from one year to the next. We initially targeted investigating those companies that jumped (or dropped) 6 levels from 1994 to 1996. Our plan is to expand our research to those with smaller jumps, as time permits or as the apparent benefit from the additional work diminishes.

<u>Level</u>	<u>RBC Ratio</u>
1	below 0.7
2	0.7 to 1.0
3	1.0 to 1.5
4	1.5 to 2.0
5	2.0 to 2.5
6	2.5 to 3.0
7	3.0 and above

Our preliminary findings (for those moving 6 levels from 1994 to 1996) is as follows:

Drop of 6 levels: Two companies were in this category. Both experienced significant reserve strengthening and surplus declines during from 1994 to 1996.

Jump of 6 levels: Five companies were in this category. They were typically small and/or new companies, that experienced significant surplus growth from 1994 to 1996 without commensurate required RBC growth.

We hope to have our factual analysis completed by the June meeting.

4. **Liquidity Risk**

This project has uncovered larger issues than just liquidity risk, and could involve a significant amount of additional work. No ETA is yet available, although we would appreciate some feedback from the working group on our progress to date.

This project started out as an investigation of strictly liquidity risk, which is defined as the risk that the inopportune forced sale of non-liquid assets could result in an otherwise solvent company becoming insolvent. The test for liquidity risk would encompass multiple tiers, with a simple test followed by more involved tests and possibly cash flow testing (or something similar) for those failing the first test(s).

A possible initial liquidity risk test was created, and run against 1996 company data. The test was the ratio of liquid assets plus “cash in”, divided by “cash out”, with these terms defined below.

Liquid assets: Bonds, preferred stocks, common stocks, cash, and short term investments, less investments in affiliates.
Cash in: Net premiums plus investment income plus other income plus FIT receivable.
Cash out: Net L&LAE paid plus underwriting expense plus policyholder dividends plus FIT paid.

The companies were then ranked based on their results for this “liquidity ratio”, with the rankings compared to a list of 1997 insolvencies. It was discovered that most of the companies that went insolvent had weak liquidity ratios. It was also discovered that some of these went insolvent even though their RBC ratio was acceptable (as high as 3.0 or 4.0). The question was raised as to whether this ratio could augment the RBC test in the identification of problem companies.

At the same time these discussions were going on, the Academy P&C RBC Task Force also concluded that the ratio wasn’t necessarily measuring liquidity risk. The general consensus was that the major problem these companies were facing was a shortage of assets, not a shortage of liquid assets. Even if all their assets were in cash, these companies would most likely still be insolvent. Therefore, the task force felt that we were probably going beyond the project’s initial charge (liquidity risk) but the value to solvency analysis made it worthwhile to continue.

The task force member working on this is now performing additional tests, based on task force feedback. Items being studied are:

- . The value added component of this test versus RBC.
- . The advanced predictive value of the test (i.e., whether companies fail only when they are on the brink of insolvency, or whether it is a leading indicator).
- . Why those with the very worst ratios aren’t on the list of insolvencies.
- . The ratio of false positives (companies with weak liquidity ratios but “secure” rating agency ratings.).
- . The ratio of false negatives (companies that went insolvent but with acceptable RBC and liquidity ratios).
- . Whether the test is biased or not against a particular industry group (e.g., health insurers).

The task force may also discuss what the follow up test might look like for companies that fail the initial test, and where to draw the line for defining a “failure” of the initial liquidity ratio test.

As can be seen from the above, this is an involved project. It is not known when the analysis and final report will be available. In the meantime, we will provide regular status reports to the NAIC P&C RBC Task Force.

5. Consistency with Life, MCO formula for A&H insurance.

The P&C formula currently points only to the Life formula for this kind of insurance, with companies writing from 5% to 99.9999% of their premium in these products required to use risk factors based on the Life formula, and companies writing 100% of their premium in this business required to use the entire Life formula.

The Academy’s P&C RBC Task Force has an outstanding recommendation to the NAIC that the 100% category be eliminated. Specifically, the Academy recommended in September of 1997 that any P&C company writing over 5% of their business in A&H products be required to use A&H risk factors based on the Life formula, with no distinction made between the 99.9999% level and the 100% level. The reasons for this recommendation included simplification and the elimination of a “game playing” opportunity.

Based on preliminary discussions, the Academy’s P&C task force sees no reason to change its recommendation. A suggestion was made to instead point to the A&H risk factors in the MCO formula, after it is adopted, but several of us have been advised by Life and Health insurance experts that the MCO formula may not consider all the products that an A&H writer may be involved in. As such, we still think it is prudent to reference Life formula risk factors for A&H business rather than the MCO risk factors. We will also rely on the Life and Health Task Forces to keep the Life and MCO formulas reasonably consistent relative to the major A&H risks.

NEXT STEPS

We plan to meet again after the March NAIC meeting, perhaps in April. At that time, we will try to finalize the first two projects (False Positive, False Negatives), and continue work on the Ratio Stability project and the "Liquidity" project. We will also discuss any initiatives that have arisen from the Academy's Joint RBC Task Force, in addition to any new work that arises from discussion with the NAIC RBC Task Force or elsewhere.