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Seeking balance

The new RBC formula for managed care organizations

by Steven N. Wander

At its 1997 summer meeting, the NAIC adopted for validation a managed care organization (MCO) risk based capital (RBC) formula. The MCO RBC formula is a modification of the health organization risk based capital (HORBC) formula developed by the American Academy of Actuaries.

It is not yet clear which types of health care organizations will be subject to the MCO RBC formula, although the name suggests it will only apply to managed care organizations. The NAIC indicates in its instructions, however, that “the formula is meant to apply to all health organizations, regardless of organizational form.” This could include health maintenance organizations (HMOs), provider service organizations (PSOs), dental maintenance organizations (DMOs), traditional indemnity insurance carriers, and many others.

This article will illustrate the implications of the MCO RBC formula on health care organizations. RBC standards are not consistently applied by all states, and some of the organizations listed above are not yet subject to RBC requirements. I will, therefore, demonstrate the implications of the MCO RBC formula by comparing it with other NAIC RBC standards that are commonly used to regulate health care entities. The first is the “NAIC Risk-Based Capital for Life and/or Health Insurers Model Act” (the life/health formula), which is currently used to monitor the solvency of traditional indemnity insurance carriers. The second is the solvency standard of the “NAIC Health Maintenance Organization Model Act” (the HMO formula), which is identical to that of the National Association of HMO Regulators (NAHMOR).

The MCO RBC formula has not been finalized and may still be adjusted

or enhanced during the NAIC’s validation and testing process. The comparisons presented in this article should, therefore, be viewed in light of the preliminary nature of the formula.

RBC formula comparisons

The RBC formulas described above develop risk based capital amounts by separating items such as assets, liabilities, and premiums into risk classes and then applying risk factors to the annual statement values of those items. Following is a comparison of the three RBC formulas mentioned above, organized into the five MCO RBC risk classes, labeled H0 through H4.

H0 (asset risk — investments in affiliates with RBC)

The MCO RBC formula for investments in affiliate companies is basically the same as the NAIC life/health formula. The main difference is that in the life/health formula, the investments in affiliates category is part of the asset risk class (called C1 in the life/health formula) and is not in a separate risk class. This has an impact on total RBC when the covariance formula (described later in this article) is applied.

The HMO formula does not require RBC related to investments in affiliate companies.

H1 (asset risk—other)

The MCO RBC and life/health asset risk formulas have similar asset categories and the same risk factors for most categories. In categories where they are different, the MCO RBC factors are generally lower; they appear to be based on the property/casualty RBC formula. The MCO RBC formula will, therefore, generally produce H1 RBC levels that are less than or equal to the life/health formula C1 amounts.

One exception may be with the treatment of health care delivery assets. They are not considered to be admitted assets on the annual statement under the

current asset valuation rules of statutory accounting and, thus, are not subject to RBC. There have been discussions indicating that they may be admitted as assets for MCO RBC purposes. This could have a large impact on HMOs and PSOs with large concentrations of health care delivery assets.

The HMO formula does not require RBC based on asset risk.

H2 (underwriting risk)

The calculation of H2 RBC (called C2 in the life/health formula) is similar in all three formulas. Tiered risk factors are applied to claims or premiums to generate RBC (i.e., x% of the first \$y, and z% above \$y). The main difference in the formulas is related to credits provided for managed care arrangements that reduce risk and, therefore, RBC. The MCO and HMO formulas provide managed care credits, whereas the life/health formula does not.

There are many other complexities in these formulas that cannot be covered in this brief article. These complexities are worth exploring, and I encourage actuaries to do so. For our purposes here, I have developed the following comparisons (see table, page 10) to illustrate the relative levels of RBC required by the three formulas. These comparisons are for large organizations (approximately 100,000 covered lives) and were developed using typical annual statement values.

Please note that the MCO RBC formula has a minimum H2 amount based on the maximum retained risk of the entity, whereas the HMO formula has a minimum of \$1 million. These minimums may cause the RBC percentages to be much higher for small companies.

H3 (credit risk)

The H3 category of the MCO formula includes risks related to: reinsurance ceded (which is included in the C1 category of the life/health formula),

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H2 (OR C2) RBC AS A PERCENTAGE OF PREMIUM

Company Type	Life/Health Formula	MCO RBC Formula	HMO Formula
HMO	10.5%	5.9%	4.3%
PSO	10.5%	4.4%	3.4%
DMO	12.7%	4.6%	4.3%
Insurance Company – Medical	9.8%	7.7%	6.0%

capitations to intermediaries, and other receivables.

In the life/health formula, C3 (interest rate risk) will generally not be an issue for health care organizations, and the HMO formula does not include a component related to credit risk or interest rate risk. The MCO RBC formula will, therefore, generally produce higher levels of H3 RBC than either of the other formulas.

H4 (business risk)

The H4 category of the MCO formula includes risks related to: administrative expenses, non-underwritten business, limited-risk business, guaranty fund assessment risk, and excessive growth risk.

In the life/health formula, the RBC amount related to business risk (C4) – which is equal to 0.5% of premiums – is relatively small for health care organizations, and the HMO formula does not include a component related to business risk. The MCO RBC formula will, therefore, generally produce higher levels of H4 RBC than either of the other two formulas.

Covariance

The risk class RBC amounts are combined to produce total RBC using the following covariance formulas:

- MCO RBC formula:

$$H0 + \sqrt{(H1^2 + H2^2 + H3^2 + H4^2)}$$
- Life/health formula:

$$C4 + \sqrt{[(C1 + C3)^2 + C2^2]}$$
- HMO formula:
 Not Applicable (only one risk class)

Due to the dynamics of these formulas, if the RBC for a risk class within the square root function is relatively large

compared to the the other risk classes within the square root function, the smaller RBC amounts will get “covarianced away.” In health care organizations, H2 (or C2) is typically much larger than the other risk classes within the square root function, so these smaller risk classes tend to get “covarianced away.” This will not happen to H0 and C4, because they are outside the square root function. Thus, they will get added into RBC at their full value.

Implications of the proposed MCO RBC formula**HMOs and DMOs**

It appears that the capital required for a managed care organization such as an HMO or a DMO will be higher under the MCO RBC formula than under the HMO formula. Not only do the MCO RBC H2 amounts appear higher than the amounts required by the HMO formula, but there are also additional amounts for H0, H1, H3, and H4. These other categories tend to be relatively small for health organizations and may get “covarianced away.” If health care delivery assets are admitted, however, the H1 category could have a large impact on MCOs. In addition, if health care delivery assets are included, the RBC calculation may develop values related more to the capital base of the MCO than the insurance risk assumed by the MCO.

Although the capital required for a managed care organization will be higher under the MCO RBC formula than under the HMO formula, the following is worth noting:

- **HMO formula:** When a company falls below the RBC level (labeled “X” for illustrative purposes), a state regulator can take over. Regulators can do nothing before this point.

- **MCO RBC:** When a company falls below the RBC level (labeled “Y” for illustrative purposes), a state regulator can begin to regulate and to ask a company for a plan to increase its level of capital. As the capital level continues to fall, the level of regulatory intervention increases; when total capital drops below the authorized control level (equal to 50% of total RBC), the regulator may take control.

A regulator may believe an appropriate comparison of the two formulas would be X with 50% of Y, since these are the points where the same level of regulatory action can be taken under the two formulas. However, the MCO executive, who does not want any level of regulatory interference, may do a direct comparison between X and Y because these are the points where regulatory action begins.

Traditional indemnity insurance carriers

It appears as though the amounts produced by the MCO RBC formula are less than the amounts produced by the current life/health formula. This will vary for each company and may be affected by managed care arrangements that could allow an indemnity insurer to receive managed care credits.

PSOs

PSOs that enter into risk agreements with HMOs are not typically subject to state insurance laws, including RBC. Now that the Balanced Budget Act of 1997 will allow PSOs to contract directly with Medicare, PSOs might become subject to MCO RBC requirements. These capital requirements could be an obstacle to PSOs (which traditionally do not have large amounts of capital) in entering the direct contracting market.

Many hope that when final testing is completed, the MCO RBC formula will provide an appropriate balance between the need for policyholder protection and the need for new and innovative approaches to delivering low-cost, high-quality health care.

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CAS reaffirms independence, value of work with SOA

Following is the letter sent to the SOA Board of Governors in August by the CAS Board of Directors and signed by Robert A. Anker, CAS president.

The May 1997 issue of the *Actuarial Review* contained three opinion pieces: an editorial titled "How to Catch a Wild Hog" by the editor in chief of the newsletter and a member of the CAS Board of Directors, C.K. (Stan) Khury; a column titled "Cassandra of the CAS" by a member of the CAS Board of Directors, Sholom Feldblum; and a column titled "From the President" by Robert A. Anker. The CAS Board of Directors has been told that these three pieces have generated a substantial adverse reaction with the SOA leadership.

The CAS Board of Directors wants to reaffirm to all parties that the opinions expressed in these articles do not reflect an official policy of the CAS. Also, although there is a written disclaimer in the *Actuarial Review* stating, "The Casualty Actuarial Society is not responsible for statements or opinions expressed in the *Actuarial Review*," we are aware that some readers have, regrettably, mistakenly assumed that an editorial in an official CAS publication is a reflection of CAS policy.

The CAS Board of Directors also affirms its strategic plan, adopted by the board in September 1996, which (a) characterized the CAS as an independent organization of professionals with a distinct identity, yet (b) recognized that joint activities with the Society of Actuaries will often be beneficial to casualty actuaries, the CAS, and the entire profession. That plan further states, "the challenge of the future (in particular, expanding the scope of casualty work) may be 'furthered' by some cooperative endeavors with the SOA."

The CAS board continues to believe that "... the CAS should become or remain involved in the joint activities or cooperative efforts, including exams with other organizations ..." so long as the guiding principles set forth in the strategic plan are met.

The CAS board wishes to continue to foster a cooperative relationship between the CAS and the SOA and encourages the CAS leadership to continue to work together for the good of the profession as well as the CAS and the SOA.

On trust (continued from page 11)

or their training. Though they hear the SOA's assurances, their lack of trust leads them to cite examples of disrespect from as far back as 1914, when the CAS was founded, all the way up to today. Clearly, there is a deep wound in the psyche of the CAS leadership.

Establishing trust will be difficult, and attacks on the SOA have not helped the situation. Anyone who has studied the CAS education syllabus recently or who has worked with the CAS exam committees should have high regard for the quality of their education and examination program. Certainly, the property and casualty industry is an important part of the insurance industry, and casualty actuaries play a crucial role there.

Based on discussions at SOA board meetings, I sent a letter to Bob Anker and copies to the CAS board. My letter said, in part:

Because of recent questions and comments, the SOA board wants to affirm that it has the utmost respect for the CAS and its members. Further, the SOA board understands that the CAS is "an independent organization of professionals with a distinct identity" and has no plans to challenge the organizational sovereignty of the CAS.

In spite of all the past problems, I hope that SOA members will demonstrate respect for their professional colleagues in the CAS and that the CAS will develop trust and confidence in the SOA. In the end, my goal is still that we will be able to work together cooperatively for the good of the actuarial profession.

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Although integrated delivery systems assume insurance risk, they may have a greater ability to control the costs and quality of care than the formula recognizes because they provide services directly. If the formula fails to recognize this fact, too much capital could be required, which would hinder such

systems' ability to enter the direct contract market.

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