AMERICAN ACADEMY of ACTUARIES

Interim Report of the HORBC Asset Codification Work Group

To the

NAIC Health Organizations Risk-Based Capital (E) Working Group

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This report was prepared by the Academy's Asset Codification Work Group of the Task Force on Health Organizations Risk-Based Capital (HORBC).

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Introduction

The American Academy of Actuaries' Asset Codification Work Group of the Task Force on Health Organizations Risk-Based Capital was formed in August 2000 in order to respond to a request for assistance issued to the Academy by the NAIC Health Organizations Risk-Based Capital (HORBC) Working Group. The objective of that request was a review of certain asset-related elements of the MCO RBC formula in light of recent developments, most notably the impending introduction of the "codification" Statements of Statutory Accounting Principles. Specific issues identified in the request included the following:

- Common stock
- Covariance formula
- Deferred tax assets/liabilities
- Health care delivery assets
- Health care receivables

In the process of responding to this request, the work group needed to consider appropriate criteria for how to evaluate and recognize change in the risk-based capital formula for health organizations. From a foundational perspective, the work group looked to three guiding principles that date back to the initial NAIC/Academy work that evolved into the current MCO RBC formula:

- Effective accounting standards are a prerequisite to the development of any risk-based capital standards. A strong relationship exists between solvency and the adequacy of accounting for assets and liabilities.

- A balance of accuracy vs. complexity needs to be struck in constructing risk-based capital formulas. There is a "need to make compromises to end up with a system that is practical to apply," and it is the role of "regulation [to] determine where those compromises should be made … with information about the impact on accuracy."[1]

- The focal point of risk-based capital is the authorized control level, the "level at which a state regulator may take action upon a company." Setting this level is a delicate balance between an "acceptable probability of financial failure" within a given timeframe and "the current capital levels of [health organizations], since the industry operates under the free market risk and return constraints of the capital markets."[2]

With these principles in mind, the work group approached its task within the framework expressed in the paragraphs below.

Desirability of Maintaining the Status Quo. Changes in the risk-based capital formula can create discontinuities from one year to the next in the required capital of health organizations. Similarly, changes in accounting standards can create discontinuities from one year to the next in the statutory surplus of health organizations. Both of these circumstances result in discontinuities in health organizations' RBC ratios, and hence in their positions relative to the RBC action levels.

The question of whether or not the risk-based capital formula should be additionally modified in order to maintain (as best as possible) the relative status quo is purely a regulatory one. This decision of whether

[1] Quoted passages are taken from a November 8, 1993 letter from Commissioner Wilcox (then chair, NAIC HORBC WG), included as Appendix F of the June 1994 report of the Academy HORBC Task Force.

[2] Quoted passages are taken from the June 1994 report of the Academy HORBC Task Force.

or not to "recalibrate" the risk-based capital formula in order to dilute, or strengthen, the intervention threshold is one that can only be made by the NAIC.

Methods of Adjusting to Change. The implementation of codification will create discontinuities in the statutory surplus of health organizations in many different ways: through non-admission of previously admitted assets; through acceleration in the depreciation of currently admitted assets; through enhanced recognition of liabilities; and through changes in inherent conservatism. With these types of material accounting changes, it would not be possible to maintain the status quo solely through adjusting the factors or structure of the risk-based capital formula, as no change in the risk factors applied to assets would suffice to offset the changes in the values of the assets themselves. It would instead be necessary to make adjustments to the definition of total adjusted capital (TAC), the numerator of the RBC ratio.

Along similar lines, it may be desirable to introduce a phase-in adjustment, to risk-based capital factors[3] and/or to the definition of TAC, so that the impact of material accounting changes (such as those resulting from the implementation of codification) on RBC ratios would be realized over multiple years rather than all at once. Again, the work group perceives that such decisions lie at the sole discretion of the NAIC.

Marginal Value of Additional Complexity. It is important to remember that it is not possible to develop an intervention threshold that would guarantee insolvency would not occur. The intervention threshold itself is a compromise that may or may not be improved by the introduction of additional complexity. As a result, when considering issues involving some of the more technical aspects of risk-based capital, simplicity and compromise may be appropriate. Unilateral emphasis on one aspect of the formula may throw the end result out of balance. Whenever increases in formula complexity are proposed, the impact of such proposals needs to be effectively communicated to regulators.

The remainder of this report provides detail, on a topic-by-topic basis, of the work group's discussion to date and current recommendations.

[3] Another approach would be to change the current adjustment factor (50%) applied against RBC After Covariance to obtain Authorized Control Level (ACL) RBC. This would enable a very broad recalibration in mid-2001 without any formula changes.

Common Stock

Background

The risk-based capital factor for unaffiliated common stock currently varies between the three RBC formulas: 30% in Life RBC, 15% in both MCO RBC and Property/Casualty RBC. The work group was asked to revisit the issue of whether or not 15% was the appropriate factor for use in the MCO RBC formula in light of the differences that exist between health organizations, life insurers, and property/casualty insurers.

In order to obtain appropriate perspective, the work group attempted to ascertain the rationale underlying the existing treatment of unaffiliated common stock in each of the three RBC formulas.

Property/Casualty RBC

The development of the unaffiliated common stock factor in the Property/Casualty RBC formula had previously been summarized[4] as follows:

> "Two studies were prepared in the original development of the property/casualty risk-based capital factor of common stock. Both studies based their estimates on a one year holding period, and looked at only the end points of each period to determine the capital requirements for the period. … [One study] recommended a 10%-15% factor, with 10% corresponding to the 1946-1991 data and 15% corresponding to the 1926-1991 data. … Based on data from the 1940-1990 period [the other study] recommended a factor of 10% at the 90% confidence level and 13% at the 95% confidence level. The NAIC's choice of a 15% factor, although made in executive session, seems to have been based on these studies."

Life RBC

The study prepared in the original development of the life risk-based capital factor for common stock was based on a two-year holding period and considered intermediate monthly results rather than just the endpoints. The 30% factor corresponded with the 94th percentile using 1960-1991 data. The appropriateness of the 30% factor for Life RBC was reaffirmed by an Academy task force in December 1997 and subsequently by the NAIC.

MCO RBC

The developmental work performed by the Academy on RBC for health organizations had focused primarily on underwriting risk, which was perceived as the dominant risk for health organizations, and touched on asset risk only insofar as assets unique to health organizations were concerned.

The presence in MCO RBC of the 15% factor has been attributed to a decision, made by the NAIC during the construction of the MCO RBC formula, that the "default" treatments of assets in MCO RBC should be those found in the Property/Casualty RBC formula.

Discussion and Recommendation

In deliberating on whether or not to retain the 15% factor, the work group focused on developing an understanding of the differences and similarities between health organizations, life insurers, and property/casualty insurers as they pertain to investing in unaffiliated common stock.

[4] The quoted passage is taken from the December 1997 report of the Academy's Life RBC Task Force.

The decision by life insurers to invest in unaffiliated common stock is perceived to be primarily motivated by a desire to boost overall portfolio yield in order to heighten the competitiveness of policyholder interest credits on the insurers' products. As a result, the presumptive increase in investment earnings from equities relative to less risky investments does not directly benefit the life insurer but instead has been taken into account in the pricing of the insurers' products.

Additionally, life insurers are subject to the risk that, at any given time, they may be forced to liquidate assets in order to satisfy policyholder demands for cash. This "disintermediation risk" arises from both the callable nature of their insurance liabilities and the dearth of operating cash flow relative to the magnitude of assets held. The presence of disintermediation risk is a key argument behind the consideration of intermediate results, as opposed to endpoints only, in the study used to derive the 30% factor found in the Life RBC formula.

On the other hand, the decision by health organizations to invest in unaffiliated common stock is principally unrelated to their insurance product risks and instead represents an attempt to increase the rate of growth of surplus. Property/casualty insurers are largely similar to health organizations in this respect, although these insurers may also be investing in equities in order to fulfill a desire to hold assets that hedge against the inflation risk inherent in certain long-term liabilities (such as workers' compensation medical claims).

Property/casualty insurers also have greater control over the timing of release of liabilities and typically have sufficient inflows of premium to cover liability outflows without having to resort to a wholesale liquidation of poorly performing assets. Health organizations are substantially similar to property/casualty insurers in these respects. The lack of disintermediation risk for property/casualty insurers has been used to justify the consideration of endpoint results only, and not of intermediate results, in the studies underlying the 15% factor found in the Property/Casualty RBC formula.

The presence of connections between equity assets and life insurance liabilities, and the absence of similar connections between equity assets and property/casualty liabilities, can be used to argue that a life insurer's de facto holding period for equity investments is greater than that of a property/casualty insurer. As mentioned above, the current factors in the Life and Property/Casualty RBC formulas are consistent with such an argument. The same argument would appear to imply that a health organization's holding period for equity investments is similar to that of a property/casualty insurer and less than that of a life insurer.

In summary, the work group believes that health organizations are substantially different from life insurers, and essentially similar to property/casualty insurers, insofar as the reasons for investing in unaffiliated common stocks and the potential business consequences of such investment. Consequently, the work group concluded that the assumptions made in the studies that underlie the 15% property/casualty factor are more applicable to health organizations than the parallel assumptions made in the study underlying the 30% life factor.

As a result, the work group recommends that the unaffiliated common stock factor in MCO RBC should remain at 15%.

However, the work group recognizes that its recommendation may need to be revisited in certain circumstances, including the following:

- If the treatment of unaffiliated common stock in the covariance formula were to change (see below), then that change would have a noticeable impact on the required capital of the health industry, with different companies being affected in different ways depending on their individual

circumstances. The NAIC might decide that the MCO RBC formula should be "recalibrated" in conjunction with the covariance change, so as to minimize the likelihood that a company's post-change RBC action level status differs from what it would have been without the change. If the NAIC were to support a change in the covariance formula but simultaneously express a desire for such recalibration, then studies would need to be performed to determine the appropriate complementary change to the unaffiliated common stock factor.

- Stock market volatility in recent years may be noticeably different from what it had been in the years (pre-1992) considered in the studies referenced above. If this is so, then the level of conservatism found in the unaffiliated common stock factors in all three RBC formulas may differ from what had been originally intended. This avenue of thought might warrant a consideration of whether the three formulas' risk factors for stocks may collectively need to be adjusted in order to return to the original level of conservatism. This work group felt that such an issue was outside of the scope of its charge and did not explore it further.

- The Academy is about to undertake a project to achieve uniform treatment of federal income taxes throughout all risk factors in the three RBC formulas. This work group has not made any effort in its work to reflect any modification in the tax treatment. Thus, the unaffiliated common stock factor may need to be changed, in a neutral way, in the implementation of the tax treatment project.

Covariance Formula

Background

The MCO RBC formula currently combines all asset risks[5] into a single component, H1, for purposes of the covariance formula. Theoretically, this is consistent with a belief that the risk of loss from unaffiliated common stock assets is perfectly correlated with the risk of loss from other assets, such as fixed income instruments.

The Property/Casualty RBC formula, by contrast, has two distinct components for asset risks, R1 (fixed income) and R2 (other assets). The separation of fixed income risk from equity risk in this formula reflects a different belief, namely that the risk of asset loss from bond defaults is uncorrelated with the risk of asset loss from stock price fluctuations.

The Life RBC formula currently has a single component, C1, for all asset risks and combines that component with the interest rate risk component, C3a, for purposes of the covariance formula. However, a December 2000 report from the Academy's Life RBC Committee proposes a change to the Life RBC covariance formula. Under this change, which (if approved by the NAIC Life RBC Working Group) could take effect for 2001, the current C1 component would be subdivided into two components: one, C1cs, solely for unaffiliated common stock risks, and another, C1o, for all other asset risks. The proposed covariance formula would combine C1o with C3a while leaving C1cs as a standalone component:

$$\text{Proposed Life RBC} = \text{C0} + \text{C4}a + \sqrt{(\text{C1o} + \text{C3}a)^2 + \text{C1cs}^2 + \text{C2}^2 + C3b^2 + C4b^2}$$

As such, this change would be consistent with the belief expressed above that the risk of asset loss from bond defaults is uncorrelated with the risk of asset loss from common stock price fluctuations.

This work group decided, in light of the proposed change to Life RBC, to reexamine the issue of the appropriate covariance treatment of common stock in MCO RBC.

Discussion and Recommendation

The work group sees no theoretical justification for retaining in MCO RBC a covariance treatment that differs materially from the corresponding treatments in both Life RBC and Property/Casualty RBC. Therefore if the aforementioned Life RBC change, which would put Life RBC and Property/Casualty RBC on similar footing regarding the correlation of equity losses with bond defaults, is accepted for 2001, then the work group recommends that a corresponding change be made to MCO RBC for 2001.

In an earlier section we noted that health organizations are in many respects more similar to property/casualty insurers than to life insurers insofar as asset risks are concerned. With this in mind, the work group believes that it may be appropriate in the long term to modify the MCO RBC formula so that it mimics the Property/Casualty approach: two separate asset components, one for fixed income and one for other assets, each having its own concentration factor component, and each treated as a separate component in the covariance formula.

However, the work group felt that it was impractical at this late date to explore the adoption of such an approach for 2001. Instead, the work group recommends a less radical approach, one which resembles

[5] Except for certain affiliated asset risks, which are included in the H0 component.

the Life RBC proposal and will be less cumbersome to implement on short notice. This recommendation is as follows:

- The current H1 component would be split into two components, H1cs and H1o. The H1cs component would (like the proposed C1cs in Life RBC) include not only unaffiliated common stock, but also common and preferred stock of non-insurance affiliates.

- The covariance formula in MCO RBC would then appear as follows:

$$\text{Proposed MCO RBC} = H0 + \sqrt{H1o^2 + H1cs^2 + H2^2 + H3^2 + H4^2}$$

- The current MCO RBC asset concentration risk calculation, which already includes unaffiliated common stocks (unlike its current Life RBC counterpart), would be retained without modification[6]. However, under our proposal the total "Additional RBC" resulting from that calculation, which at present is added to H1, would be added to whichever of the health organization's H1cs and H1o components is larger (before considering asset concentration risk).

  The rationale for this entity-by-entity placement of the asset concentration risk, as opposed to making all health organizations add that risk to their H1o component (or alternatively making them all add it to their H1cs component), is to ensure that the impact of asset concentration risk is not inappropriately minimized through application of the covariance adjustment. Although this recommendation may not be theoretically optimal, it is practical.

The aforementioned Life RBC proposal contains one other significant element, namely the introduction of a "beta adjustment" to the unaffiliated common stock factor, which would ratchet the factor up or down depending on the riskiness of the life insurer's equity portfolio relative to the S&P 500 index. The introduction to Life RBC of the beta adjustment appears to have been motivated by the existence of a beta adjustment in the calculation of the asset valuation reserve. Since health organizations are not subject to the asset valuation reserve, the work group sees no compelling reason to recommend that a beta adjustment be implemented in MCO RBC.

It is important to note that the recommendation to change the covariance treatment of common stock would lead to a decrease in the total required capital of health organizations. However, time did not permit the performance of any studies to quantify either the industry-wide reduction in required capital or the variability among companies as to the extent of the decrease.

The decrease in required capital caused by this change would, in some aggregate sense, be offset by or combined with the impact of other simultaneous changes. The combined effect could be mitigated in a "recalibration" of the formula if deemed necessary. The Academy takes no position on whether or not it would be appropriate to recalibrate MCO RBC at this time.

Exhibits are attached demonstrating how the current MCO RBC instructions and worksheets would need to be modified in order to implement this recommendation.

[6] The work group was given to understand that the NAIC is currently considering a change to the MCO RBC asset concentration risk calculation under which "diversified" equity mutual funds would no longer be subject to the calculation. This work group supports that action. Thus, the statement "retained without modification" refers to the calculation as it would stand after the removal of diversified mutual funds from its scope.

Deferred Tax Assets/Liabilities

Background

Under codification SSAP No. 10, deferred tax assets and deferred tax liabilities are introduced for the first time into statutory accounting. This work group had been asked to investigate whether changes to the MCO RBC formula were warranted in connection with the implementation of SSAP No. 10.

In September 2000, the Academy's Life RBC Codification Subgroup made a presentation to the NAIC's Life RBC Working Group on this same subject as it applies to Life RBC. Subsequent to that time, the ideas proposed by that group were more fully developed and were exposed to the NAIC's RBC Task Force, Property & Casualty RBC Working Group, and HORBC Working Group.

Discussion and Recommendation

As events have developed, this work group has deferred on this subject in favor of the Academy's Joint Task Force on Risk-Based Capital, which will be presenting a recommendation to the NAIC HORBC Working Group at the December 2000 meeting.

Health Care Delivery Assets

Background

Assets that are used for the delivery of health care can represent a significant portion of a health organization's total assets. The treatment of these assets in determining the organization's required capital under MCO RBC may have a significant impact on the results.

Codification SSAP No. 73 imposes a new method for the depreciation for health care delivery assets, under which such assets will generally be depreciated faster than under current statutory accounting rules. The present standard (the American Hospital Association guideline, which is accepted by the Health Care Financing Administration) includes a depreciation schedule that varies from two to twenty years, depending on the type of asset. SSAP No. 73, by contrast, limits the depreciation period for these assets to three years. A three-year phase-in of SSAP No. 73 has been proposed and is expected to be approved by the NAIC.

At present, the MCO RBC formula applies a factor of 10% against health care delivery assets (HCDAs). The work group was asked to revisit the treatment of HCDAs in MCO RBC in view of the change in their statutory valuation as a result of codification.

Discussion and Recommendation

The new statutory accounting treatment results in a decrease in admitted assets, which affect a health organization's RBC ratio calculation in two ways. First, it decreases the total amount of asset risk, which reduces the overall RBC requirement. Second, it decreases the total adjusted capital (TAC) available.

The change in the depreciation schedule does not change the inherent underlying risk characteristics of the health care delivery assets. In fact, these assets can be considered less risky as a result of the change in the accounting methodology. To illustrate this point, consider the same asset booked under two different depreciation methods. The asset booked using the method with the longer depreciation period results in a greater carrying value than would occur using the method with the shorter depreciation period. In the event of sale of the asset (under normal operations or as part of a liquidation), the impact on surplus, whether positive or negative, will be better when the carrying value is smaller. Consequently, the riskiness of HCDAs, from a solvency perspective, will be lower after codification, thus providing a theoretical basis to reduce the RBC factor applied against those assets.

If the new depreciation limitation is phased in over three years, then the aggregate ratio of statutory value to market value for the industry's HCDAs as a whole would be expected to decline in stages over those three years before reaching a new steady state. Based on this observation, one could argue that the RBC factor for HCDAs should be brought down in stages over the next three years.

However, the work group notes that it would not be possible to reduce the RBC factor for HCDAs by enough to compensate for the decrease in health organizations' RBC ratios caused by the reductions in statutory surplus resulting from the introduction of more stringent depreciation standards. The work group considered a case study in which the implementation of SSAP No. 73 decreased a particular company's TAC by 10% but only decreased its ACL RBC (assuming that the HCDA factor stayed at 10%) by 0.8%. For this example, in order to maintain the status quo by reducing the HCDA factor, that factor would need to be negative, which is not supportable.

In summary, the work group found that there is justification to reduce the HCDA risk factor from its current level of 10%, but that there is no compelling argument favoring any new value in particular, since there is no value for the factor that would stabilize the impact of the accounting change on RBC ratios. Therefore, the work group recommends that the HCDA factor be arbitrarily reduced from 10% to 5% in 2001. Alternatively, the reduction could be made in stages over the period 2001-2003.

Health Care Receivables

Background

Under codification SSAP No. 4, any asset not specifically identified within the Statements of Statutory Accounting Principles as an admitted asset is deemed to be nonadmitted. The March 2000 version of the Accounting Practices and Procedures Manual does not specifically identify certain classes of health care receivables as being admitted assets. Consequently, as of January 1, 2001 those receivables, many of which are currently treated as admitted assets, would become nonadmitted. The health care receivables involved include: pharmaceutical rebates; claim overpayments; and capitated risk sharing receivables (loans and advances to providers).

Since March 2000, the NAIC's Statutory Accounting Principles Working Group (SAPWG) has given consideration to changing the statutory treatment of these health care receivables. A history of their efforts follows.

- In March 2000, SAPWG received a "Form A" entitled "Health Insurance Receivables", which had been recommended and drafted by NAIC staff in response to inquiries from industry over the admissibility of these assets. NAIC staff was then directed by SAPWG to draft an "Issue Paper" on the subject in the hopes of providing statutory guidance to take effect January 1, 2001, at the same time as the other codification SSAPs.

- In June 2000, a draft of Issue Paper No. 107, "Health Care Receivables", was presented to SAPWG and was subsequently modified and exposed. The guidance contained in the exposed draft was as follows:

    - Pharmaceutical rebates were specifically nonadmitted; monies received under such arrangements were to be recorded as income when received;
    - Receivables for claim overpayments could be offset against the related liability only to the extent that the SSAP No. 64 setoff conditions were satisfied, and otherwise were to be nonadmitted;
    - Unsecured loans or advances to providers were specifically nonadmitted;
    - Advances to providers under capitation arrangements were admissible only to the extent that they represent less than one month's payment.

- At a September 2000 public hearing, industry trade associations expressed criticism of the conclusions reached in Issue Paper No. 107. As a result, SAPWG directed NAIC staff to provide additional clarification on several issues and develop a revised version of the issue paper for exposure.

- As of late November 2000, SAPWG had not met to discuss issues related to the redrafting of Issue Paper No. 107. There being no revised paper to expose at the December 2000 NAIC meeting, it would not be possible to hold a second public hearing until (at the earliest) the March 2001 meeting, and consequently the earliest point at which a new SSAP on this subject could possibly be adopted is the June 2001 meeting. This implies that any new guidance regarding the admissibility of health care receivables would probably not become effective until January 1, 2002.

The absence of a consensus on the accounting treatment for these assets implies that any previously admitted assets would become nonadmitted for 2001, with any reconsideration of the accounting treatment not taking effect until 2002. As a result, any health organization that had booked admitted assets of the type in question in its 2000 annual statement would experience a reduction in its statutory surplus in 2001.

The work group was asked to explore the ramifications of this set of circumstances on MCO RBC.

At present, the HMO version of the MCO RBC formula assesses a 5% risk factor for "health care receivables" as part of the credit risk (H3) component. However, the HMDI version of the formula does not impose a risk charge against health care receivables. This difference is presumably attributable to the fact that the current HMO annual statement contains an asset line item labelled "health care receivables" while the current HMDI statement does not. The 2001 Health annual statement, which will be replacing the current HMO and HMDI statements, does contain a "health care receivables" asset line item but, as discussed above, in 2001 there may well be no admitted assets appearing in that line item.

Discussion and Recommendation

All of the risk-based capital formulas assume that a full and proper accounting of assets and liabilities exists and is consistently applied. The accounting issues relating to health care receivables are still open and lie beyond the scope of this work group.

The aggregate impact of the sudden nonadmissibility of health care receivables on the statutory surplus of health organizations is not readily quantifiable, due in part to differences among states, both before and after codification, as to accepted practice regarding the admissibility of these receivables. However, the work group believes that there may be health organizations whose total adjusted capital (TAC) will decline materially, i.e. by 5% or more, due to the reclassification of previously admitted health care receivables as being nonadmitted.

Such a reduction in TAC would be appropriate from a risk-based capital standpoint to the extent that the health care receivables involved are not legitimate assets for solvency purposes (which is to say that they cannot be collateralized to an admitted asset).

The work group sees no reason not to retain the current 5% factor applied against health care receivables. It is important to note that, as was also the case with health care delivery assets, no reduction in this risk factor would suffice to outweigh the effect on RBC ratios of the codification-induced decrease in TAC.

To the extent that material changes in health organizations' RBC ratios will be caused by the TAC impact of the nonadmissibility of health care receivables, the NAIC may wish to phase in this reduction over a multi-year period. This could be accomplished by adding a line item adjustment to the calculation of TAC, in which a portion of the surplus change caused by the new accounting treatment would be added back into TAC.

In order to retain the flexibility of pursuing such a path in the 2001 MCO RBC formula, it would be necessary for the NAIC to approve the addition of the line item at the December 2000 meeting. The decision as to whether or not to actually use this adjustment for 2001, and if so what actual factor to apply, may be deferred to a later date.

Exhibits are attached demonstrating how the current MCO RBC instructions and worksheets could be modified to permit a phase-in adjustment of the type described above. In these exhibits, the description of the adjustment has been made sufficiently general so as to permit maximum flexibility as further discussion develops in the months to come.

Calculation of Total Risk-Based Capital After Covariance

			(1) RBC Amount
H0 - ASSET RISK - AFFILIATES W/RBC			
(1)	Off-Balance Sheet Items	MR005, Off-Balance Sheet Page - L(4)	
(2)	Directly Owned Insurer Subject to RBC	MR003, Affiliates Page - L(1)	
(3)	Indirectly Owned Insurer Subject to RBC	MR003, Affiliates Page - L(2)	
(4)	Directly Owned MCO Subject to RBC	MR003, Affiliates Page - L(3)	
(5)	Indirectly Owned MCO Subject to RBC	MR003, Affiliates Page - L(4)	
(6)	Directly Owned Alien Insurer	MR003, Affiliates Page - L(7)	
(7)	Indirectly Owned Alien Insurers	MR003, Affiliates Page - L(8)	
(8)	Total H0	Sum L(1) through L(7)	
H1cs - ASSET RISK - UNAFFILIATED COMMON STOCK AND AFFILIATED NON-INSURANCE STOCK			
(9)	Unaffiliated Common Stock	MR007, Equity Assets Page - L(13)	
(10)	Holding Company Excess of Subsidiaries	MR003, Affiliates Page - L(6)	
(11)	Other Affiliates	MR003, Affiliates Page - L(10)	
(12)	Subtotal H1cs	Sum L(9) through L(11)	
H1o - ASSET RISK - OTHER			
(13)	Investment Subsidiary	MR003, Affiliates Page - L(5)	
~~(10)~~	~~Holding Company Excess of Subsidiaries~~	~~MR003, Affiliates Page - L(6)~~	
(14)	Investment in Parent	MR003, Affiliates Page - L(9)	
~~(12)~~	~~Other Affiliates~~	~~MR003, Affiliates Page - L(10)~~	
(15)	**Market Value Excess Affiliate Common Stock**	**MR003, Affiliates Page - L(11)**	
(16)	Fixed Income Assets	MR006, Fixed Income Assets Page - L(20)	
(17)	Unaffiliated Preferred Stock	MR007, Equity Assets Page - L(7)	
~~**(16)**~~	~~Unaffiliated Common Stock~~	~~MR007, Equity Assets Page - L(13)~~	
(18)	Property & Equipment	MR008, Prop/Equip Assets Page - L(10)	
~~**(18)**~~	~~Asset Concentration~~	~~MR009, **Grand Total** Asset Concentration Page - **L(14)**~~	
(19)	Subtotal H1o	Sum L(9) through L(18)	
(20)	Asset Concentration	MR009, **Grand Total** Asset Concentration Page - **L(14)**	
(21)	Total H1cs	=IF(L(12) >= L(19), L(12) + L(20), L(12))	
(22)	Total H1o	=IF(L(12) < L(19), L(19) + L(20), L(19))	

Denotes proposed changes for 2001

			(1) RBC Amount
H2 - UNDERWRITING RISK			
(23)	Net Underwriting Risk	MR010, Underwriting Risk Page - L(18)	
(24)	Rate Guaranty - 15-36 Months	MR012, Underwriting Risk Page - L(19)	
(25)	Rate Guaranty - Over 36 Months	MR012, Underwriting Risk Page - L(20)	
(26)	Assessment Risk (Non-Guaranty Fund)	MR012, Underwriting Risk Page - L(21)	
(27)	Stop Loss	MR012, Underwriting Risk Page - L(22)	
(28)	Disability Income	MR012, Underwriting Risk Page - **L(23.3)+L(24.3)+L(25.3)**	
(29)	Long-Term Care	MR012, Underwriting Risk Page - **L(26.3)+L(27.3)+L(28.3)**	
(30)	Limited Benefit Plans	MR013, Underwriting Risk Page - **L(29.2)+L(30.6)**+L(31)	
(31)	Premium Stabilization Reserve	MR013, Underwriting Risk Page - L(32)	
(32)	Total H2	Sum **L(23)** through **L(31)**	
H3 - CREDIT RISK			
(33)	Total Reinsurance RBC	MR016, Credit Risk Page - L(17)	
(34)	Intermediaries Credit Risk RBC	MR016, Credit Risk Page - L(24)	
(35)	Total Other Receivables RBC	MR017, Credit Risk Page - L(31)	
(36)	Total H3	Sum **L(33)** through **L(35)**	
H4 - BUSINESS RISK			
(37)	**Administrative Expense RBC**	**MR018, Business Risk Page - L(6)**	
(38)	Non-Underwritten and Limited Risk Business RBC	MR018, Business Risk Page - **L(10)**	
(39)	Premiums Subject to Guaranty Fund Assess	MR018, Business Risk Page - **L(11)**	
(40)	Excessive Growth RBC	MR018, Business Risk Page - **L(18)**	
(41)	Total H4	Sum **L(37)** through **L(40)**	
(42)	RBC after Covariance	H0 + Square Root of $(\underline{H1cs^2+H1o^2}+H2^2+H3^2+H4^2)$	
(43)	Authorized Control Level RBC	**.50** x RBC after Covariance	

Denotes proposed changes for 2001

CALCULATION OF TOTAL ADJUSTED CAPITAL

		Annual Statement Source	(1) Statement Value	Factor	(2) Adjusted Capital
MCO Amounts					
(1)	Capital and Surplus/Total Net Worth	Page 3, Col 3, Line 24		1.000	
Other Adjustments					
(2)	Other Capital Adjustments	Company Records		pending	#VALUE!
Subsidiary Adjustments					
(3)	AVR - Life Subsidiaries	Affiliate's statement		1.000	
(4)	Dividend Liability - Life Subsidiaries	Affiliate's statement		0.500	
(5)	Tabular Discounts - P&C Subsidiaries	Affiliate's statement		-1.000	
(6)	Non-Tabular Discounts - P&C Subsidiaries	Affiliate's statement		-1.000	
(7)	**Total Adjusted Capital**				

Denotes items that must be manually entered on filing software.

Denotes proposed changes for 2001

NAIC Managed Care Organizations Risk-Based Capital Report

INTRODUCTION

Risk-based capital (RBC) is a method of measuring the minimum amount of capital appropriate for a managed care organization (MCO) to support its overall business operations in consideration of its size and risk profile. It provides an elastic means of setting the capital requirement in which the degree of risk taken by the insurer is the primary determinant. The five major categories of risks involved are:

Asset Risk - Affiliates	H–0	This is the risk of assets' default for certain affiliated investments.
Asset Risk – Unaffiliated Common Stock and Affiliated Non-Insurance Stock	H–1cs	This is the risk of assets' default of principal and interest or fluctation in market value
Asset Risk - Other	H–1o	This is the risk of assets' default of principal and interest or fluctuation in market value.
Underwriting Risk	H–2	This is the risk of underestimating liabilities from business already written or inadequately pricing business to be written in the coming year.
Credit Risk	H–3	This is the risk of recovering receivable amounts from creditors.
Business Risk	H–4	This is the risk of general business.

A company's risk-based capital is calculated by applying factors to various asset, premium and reserve items. The factor is higher for those items with greater underlying risk and lower for less risky items. The adequacy of a company's actual capital can then be measured by a comparison to its risk-based capital as determined by the formula.

Risk-based capital standards will be used by regulators to set in motion appropriate regulatory actions relating to insurers that show indications of weak or deteriorating conditions. It also provides an additional standard for minimum capital requirements that companies should meet to avoid being placed in rehabilitation or liquidation.

PURPOSE OF THIS REPORT

This report presents the NAIC Managed Care Organizations Risk-Based Capital formula in an instructional format that should be helpful to anyone responsible for submitting data. This formula is an extremely important tool for regulators. Determining accurate and timely data is obviously an important part of this process. This is most likely to occur when everyone, from the company CEO to the individual preparing the data, has a basic understanding of the formula. While this report provides this understanding in a concise package, it is strongly recommended that the person or persons compiling and entering the information be senior company officials with a good understanding of the financial aspects of Health Maintenance Organizations. It is also recommended that companies seek the assistance of their independent accountants and/or actuaries when preparing this report.

WHAT'S IN THE REPORT

Certain terms relating to risk-based capital used in this report are defined in the Risk-Based Capital (RBC) for Insurers Model Act.

Generally, each narrative page discusses a different segment of each risk classification (e.g., there is a narrative for Bonds,

ASSET CONCENTRATION

The purpose of the asset concentration calculation is to reflect the additional risk of high concentrations of certain types of assets in single exposures, termed ISSUERs. An issuer is a single entity, such as IBM or the Ford Motor Company. When the MCO has a large portion of its asset portfolio concentrated in only a few issuers, there is a heightened risk of insolvency if one of those issuers should default. An issuer may be represented in the MCO's investment portfolio by a single security class, such as a large block of Class 2 bonds, or a combination of various securities, such as common stocks, preferred stocks and bonds. The additional RBC for asset concentration is applied to the ten largest issuers.

Concentrated investments in certain types of assets are not expected to represent an additional risk over and above the general risk of the asset itself. Therefore, prior to determining the ten largest issuers, you should exclude those assets that are exempt from the asset concentration factor. Asset types that are excluded from the calculation include: SVO Class 6 bonds and preferred stock, affiliated common stock, affiliated preferred stock, affiliated bonds, property and equipment, US government guaranteed bonds, SVO Class 1 bonds, and any other asset categories with risk-based capital factors less that 1 percent.

The assets that **ARE INCLUDED** in the calculation when determining the 10 largest issuers are as follows:

Unaffiliated Bonds – Asset Class 2
Unaffiliated Bonds – Asset Class 3
Unaffiliated Bonds – Asset Class 4
Unaffiliated Bonds – Asset Class 5
Collateral Loans
Mortgage Loans
Unaffiliated Preferred Stock – Asset Class 1
Unaffiliated Preferred Stock – Asset Class 2
Unaffiliated Preferred Stock – Asset Class 3
Unaffiliated Preferred Stock – Asset Class 4
Unaffiliated Preferred Stock – Asset Class 5
Other Long-Term Assets
Unaffiliated Common Stock

The concentration factor basically doubles the risk-based capital factor (up to a maximum of 30 percent) for assets held in the 10 largest issuers. Since the risk-based capital of the assets included in the concentration factor has already been counted once in the basic formula, this factor itself only serves to add an additional risk-based capital requirement on these assets. The total additional risk-based capital arising from the concentration calculation becomes part of either the H1cs component or the H1o component – whichever component is larger.

The name of each of the largest ten issuers is entered at the top of the table and the appropriate statement amounts are entered in Column (2), Lines 1 through 13. Aggregate all similar asset types before entering the amount in column (2). To determine the ten largest issuers, first pool all of the assets subject to the concentration factor. From this pool, aggregate the various securities by issuer. The aggregate statement values for the assets is computed, and the ten largest are subject to the concentration factor. For example, an organization might own $10,000,000 in Class 2 bonds of IBM plus $5,000,000 of common stock. The total investment in that issuer is $15,000,000. If that is the largest issuer, then the identifier ("IBM corporation") would be entered in the space allowed for Issuer #1 and the $10,000,000 would be entered under the statement value column for line 1.01 (Class 2 unaffiliated bonds) and the $5,000,000 would be entered on line 1.13 (unaffiliated common stock).

COVARIANCE CALCULATION

The purpose of the MCO RBC formula is to estimate the minimum risk-based capital required to absorb losses that can be caused by a series of catastrophic financial events. However, it is extremely unlikely that all such losses will occur simultaneously. The covariance formula adjusts the combined effect of the H0, H1cs, H1o, H2, H3 and H4 risks so that the combination of risks is less than the sum of the parts. Statistically, this assumes that the H1cs, H1o, H2, H3 and H4 risks are uncorrelated. The H0 risk of subsidiaries is added to the total under the assumption that the risk of the subsidiaries is highly correlated with the risk of the parent, so that if the parent were to experience severe financial distress, the subsidiaries would also be adversely affected.

The components of the RBC after Covariance Formula are:

H0 – Affiliated Company Assets RBC
H1cs – Asset Risk – Unaffiliated Common Stock and Affiliated Non-Insurance Stock
H1o – Asset Risk – Other
H2 – Underwriting Risk
H3 – Credit Risk
H4 – Business Risk

The covariance formula is:

$$\text{RBC after Covariance} = \text{Square Root of } (H1cs^2 + H1o^2 + H2^2 + H3^2 + H4^2) + H0$$

Authorized Control Level RBC is computed from the RBC after Covariance. A phase-in provision to ease the transition is included. For reporting year 1998, Authorized Control Level Risk-Based Capital was 40 percent of RBC after Covariance. For reporting year 1999, Authorized Control Level RBC was set at 45 percent of RBC after Covariance. Reporting year 2000 forward, Authorized Control Level RBC is set at 50 percent of RBC after Covariance.

Company Action Level RBC is two hundred percent of Authorized Control Level RBC. Regulatory Action Level RBC is one hundred fifty percent of Authorized Control Level RBC. Mandatory Control Level RBC is seventy percent of Authorized Control Level RBC.

TOTAL ADJUSTED CAPITAL

Total Adjusted Capital (TAC) includes the statutory capital and surplus/total net worth of the MCO plus adjustments. Adjustments are made in recognition of statutory accounting conventions that tend to understate the actual capital and surplus that a company possesses in case of liquidation.

There are additions to TAC as designated by the NAIC recognizing proportions of non-admitted or depreciated assets in recognition of phasing in accounting changes and/or unresolved accounting for the designated assets. These adjustments include the following:

(list)

There are additions to TAC for the Asset Valuation Reserves and half of the dividend liability of any life/health subsidiary. These reserves understate the surplus of the subsidiary and must be added back to the parent's TAC. The statement value of any life/health subsidiary's AVR should be reported on Line (~~2~~3), prorated for percent of ownership. Dividend liability for life insurance subs should be reported on Line (~~3~~4).

Subsidiary amounts are included as appropriate, recognizing that the subsidiary's surplus is included within the surplus of the parent. For Property and Casualty subsidiaries, there is a reduction in TAC equal to non-tabular discounts and medical discounts reported as tabular that the subsidiary may claim. Discounting of loss reserves is not widely practiced in property/casualty accounting. Therefore, any of these discounts being used by a property/casualty subsidiary to bolster the subsidiary's surplus must be removed to ensure a level playing field among companies subject to RBC. If the MCO owns a property/casualty subsidiary that has non-tabular discounts or medical discounts reported as tabular, the full amount of the reserve discount should be entered on Lines (45) and (~~5~~6). Nontabular reserve discounts reported in L(~~5~~6) come from the subsidiary's Schedule P Part 1. Tabular reserves in L(45) come from the Notes to the Financial Statement of the affiliate's annual statement.