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To: [CriteriaComments@Standardandpoors.com](mailto:CriteriaComments@Standardandpoors.com)

Re: Request for Comments: "A New Level of Enterprise Risk Management Analysis: Methodology For Assessing Insurers' Economic Capital Models"

SENT VIA E-MAIL

[Click here to view the Standard & Poor's Proposal](#)

Pinnacle Actuarial Resources, Inc. ("Pinnacle") welcomes the opportunity to provide input on Standard & Poor's May 19, 2010 proposal entitled "A New Level of Enterprise Risk Management Analysis: Methodology For Assessing Insurers' Economic Capital Models" (hereafter, "the proposal").

Pinnacle is a privately-owned firm focused on property and casualty actuarial and risk management consulting. Our clients include small, mid-sized and large property/casualty insurers. Pinnacle consultants have reviewed the proposal and we offer our comments and questions below.

We will address a subset of the questions posed in Paragraph 12, and will do so in the order of the Paragraphs to which they refer.

Q: *What are your views about the clarity of our proposed definition of "economic capital"? (Paragraph 15)*

Paragraph 15 defines "economic capital" as follows: *Standard & Poor's uses the term "economic capital" to mean the financial resources (in addition to reserves and liabilities) required to support an insurer's financial obligations over a stated horizon at a stated confidence level. An ECM is a tool that models the insurer's risks and estimates its risk-specific economic capital. We feel that this definition is slightly confusing.*

1. The phrase "in addition to reserves and liabilities" could cause some confusion as many insurance professionals consider the term "reserves" to refer only to certain types of liabilities (e.g. loss reserves and premium reserves); therefore its appearance in the phrase "reserves and liabilities" may seem strange to some.
2. The second sentence of Paragraph 15 states that "an ECM is a tool that models the insurer's risks ..." It is certainly true that all risks should be considered by a firm's ERM, but not all risks can be measured using an ECM. The definition implies that an ECM must model *all* risks, which is simply not possible.
3. The second sentence of Paragraph 15 refers to "risk-specific economic capital" without defining it. Is a firm's "risk-specific economic capital" a subset of its total economic capital? If so, how does one distinguish the risk-specific portion from the whole? To many in the insurance industry, "economic capital" means the amount of capital required to fund future obligations over a specified period of time at a selected confidence level given the risk profile of the firm. This would imply that *all* economic capital is "risk-specific". Additionally, the definition does not explicitly make the point that economic capital is a notional amount of desired or required capital as opposed to a segregation of actual held capital.

Q: *What are your views about "total targeted resources" and the "M-factor"? (Paragraphs 28-46)*

1. The definition of "total targeted resources (TTR)" in Paragraph 31 taken together with the calculations in Tables 1 and 2 imply that TTR is equal to the sum of two things: required "reserves and liabilities" and economic capital. This is strikingly similar to a commonly used definition of "Market Value of Assets (MVA)". Is there a distinction between TTR and MVA? If not, then why do you introduce a new term? If so,

then perhaps this distinction can be made more explicit. Again, TTR is notional capital as opposed to actual capital, and that distinction is not made.

2. Paragraph 35 makes an important and valid point, but it should more explicitly state that the modeling of dependencies has a direct impact on the calculation of TTR.
3. While we understand that the Standard & Poor's RBC model uses the VAR measure, it is well known that this risk metric is not coherent, and there is broad agreement in a large segment of the actuarial, financial and academic communities that its use should be discouraged. Requiring insurers to produce EC results based on a VAR measure may cause some companies to adopt VAR as their sole risk metric, which is a highly undesirable outcome.
4. Paragraph 39 states that the ECM review will not "directly affect the rating of an insurer", while Paragraph 42 states that your opinion of the ECM can affect your opinion of the insurer's ERM, which can affect the ratings. This can lead to some confusion. Firstly, many will read Paragraph 39 and assume – incorrectly – that the ECM review will have no impact on ratings, and question the usefulness of the ECM review. Secondly, many will read Paragraphs 39 and 42 as contradictory. We understand these two Paragraphs to state the ECM review will not have an immediate and direct affect on ratings, but that it may change your view of the company's ERM, which could then have a ratings impact. In a practical sense, the distinction is meaningless. The ECM review is clearly intended to be integral to the ERM review, and the ERM review can clearly impact ratings. So the ECM review can indeed have a ratings effect.
5. The constraints on the M-factor may be viewed by some insurers as a disincentive to cooperate fully with the ECM review. Some insurers feel that sharing certain proprietary elements of the ECM model with any outside party is to be strenuously avoided. It may be difficult for them to overcome their reluctance to share these elements with Standard & Poor's if the most one has to gain from the ECM review is a decrease in TTR equivalent to one rating category.
6. Tables 1 and 2 are a bit confusing. For example, it is not clear how the "Post M-factor target capital" figures are computed. Even more confusing is the use of the phrase "reduction in target capital" in Table 2, when the TTR is, in fact, increasing.

*Q: What are your views about our proposal to cap an insurer's ERM score at "strong" for those insurers that apply ECMs that we do not view as credible? (Paragraphs 47-48)*

There is a bit of circular reasoning on the issue of ERM scores and the credibility of the ECM. Paragraphs 47 and 48 imply that a firm's ERM cannot be considered "excellent" absent the existence of a credible ECM. However, there may be valid reasons for a firm with a strong risk culture and a very good ERM framework to decide not to devote the resources required to develop an ECM. In fact, Paragraph 8 admits that some firms may not have "risk profiles meriting a detailed ECM review". We feel that the proposed requirement of having a credible ECM in order to achieve an ERM score of "excellent" may become unfairly discriminatory against such firms. You seem to be saying that if all other aspects of the ERM review point to a score of "excellent", but that the firm does not have (or need) an ECM, then you will artificially cap the ERM score at "strong". The only way to avoid this problem would be to then engage in the less than excellent ERM practice of developing an expensive yet unnecessary model, and as such demonstrate then the ERM is not, in fact, "excellent".

Paragraph 27 states that an insurer's ECM can be considered credible only if its ERM score is "strong" or higher. Paragraph 47 states that an ERM score of "excellent" is only possible if the ECM is considered credible. We recognize that it is possible that the ERM and ECM scoring process may be intended to be iterative, but this does seem unnecessarily confusing. Furthermore, it seems to us that a firm can have a credible ECM with a less than "strong" ERM process (e.g. the development and implementation of the ECM is driving the development of the insurer's ERM); or as noted above the risk profile may not justify the costs to develop an ECM.

We agree that a firm's ERM score should not be "excellent" if the firm is using an ECM that you do not view as credible. But we do not feel that a firm must have an ECM in order to demonstrate excellent ERM.

*Q: What are your views about our proposal to calibrate the outcome of our analysis of an insurer's ECM with Standard & Poor's own risk-based capital model? (Paragraphs 49-56)*

We disagree with this proposal mainly due to the well known fact that VAR is not a coherent measure of risk. Your proposal to calibrate an insurer's ECM with your RBC model will only serve to perpetuate bad practices that should instead be discouraged.

Q: *What are your views about our proposed criteria for reviewing insurers' ECMs? (Paragraphs 14-134)*

We restrict our response to this question to Paragraphs 57 to 134. In general, we have very positive views of the criteria. Particular comments follow.

1. Chart 2 is very useful and appropriate.
2. We are quite encouraged by the discussion in Paragraph 63 regarding stochastic models and scenario testing and feel its importance cannot be overstated. It can be very challenging to construct a stochastic model with realistic assumptions that properly models highly unusual negative scenarios. Encouraging firms to use both stochastic modeling approaches and scenario testing is appropriate and desirable.
3. The discussion on data quality in Paragraph 65 is also important and encouraging – firms must be encouraged to stress test results of their models with data from “crisis periods”.
4. We are a bit confused by the discussion in Paragraphs 77 to 80 regarding “market value of liabilities”. Most of the liabilities held by a P&C insurer do not have “market values”, as there is no liquid or easily accessible market for the trading of such liabilities. What trading does exist is not driven by “market values”, but is driven by “prices” - the distinction being that “price” is driven by the circumstances and opinions of the parties to the trade, whereas “market value” is objectively observed in a market.
5. We are extremely encouraged by the discussion in Paragraphs 119 to 130 regarding diversification and capital fungibility. These are extremely important and subtle concepts which, if improperly modeled, can lead to both overstatements and understatements of economic capital. Appropriate methods for modeling dependencies, diversification and fungibility can be quite specific to the firm in question, and what is appropriate for one may be inappropriate for others. These issues bear very close scrutiny in any reviews of ECMs performed by Standard & Poor's.

We hope that you will find these comments helpful. If you have any questions please feel free to contact Kevin Madigan at (518) 288-0139 or at [kmadigan@pinnacleactuaries.com](mailto:kmadigan@pinnacleactuaries.com).