

American Academy of Actuaries' Life Capital Adequacy Subcommittee Report on the Working Reserve for the C3 RBC Calculation to the National Association of Insurance Commissioners' Life Risk Based Capital Work Group

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Life Capital Adequacy Subcommittee

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EXECUTIVE SUMMARY

In developing the proposed approach for a principle-based calculation of C-3 Risk Based Capital (RBC) for life products, the Life Capital Adequacy Subcommittee (LCAS) spent a considerable amount of time addressing the issue of the working reserve used in that calculation. In this context, the term "working reserve" is the assumed reserve used in the projection of accumulated deficiencies supporting the calculation of C-3 RBC.

As a starting point, the LCAS reviewed the approached developed by the Life Reserve Work Group for principle-based reserves. This approach involved, at least initially, projecting cash flows under many economic scenarios, accumulating those cash flows to each projected year end, comparing the accumulated assets to a "working reserve," and discounting the difference between the accumulated assets and the working reserve.

The LCAS saw three distinct theoretical approaches for the C-3 RBC calculation, each with its own implications for the working reserve:

- An economic approach, where a total asset requirement (TAR) is established so that there is a high likelihood that the cash flows will be adequate to cover the benefit and expense payments for which the company is liable. In this approach, the working reserve is zero.
- An exit value approach that seeks to assure with a high degree of confidence that there are enough assets on hand in the event of a solvency incident to induce another company to take on the risks presented by the liabilities of the stressed company. In this approach, an estimate of the exit value (e.g., the present value of cash flows plus a cost of capital margin) would be used as the working reserve.
- A solvency approach, which establishes a C-3 RBC amount that provides substantial assurance that the company will remain statutorily solvent at each future year-end. In this approach, the working reserve is equal to the statutory reserves at each projected year-end.

The LCAS decided that the exit value concept was most appropriate from a theoretical perspective. However, there are significant practical problems with this approach, most notably that exit value is undefined and any version of exit value would be quite difficult to calculate.

After much consideration, the LCAS decided to recommend that the working reserve for life insurance policies subject to formulaic reserves be set equal to the cash surrender value (CSV) of the contract, even if it is zero. This approach is computationally friendly, unlike either exit value or statutory reserve, and modeling results show that the use of CSV provides an acceptable result. The LCAS has decided not to recommend a solution to the working reserve issue for either annuities or for life insurance policies subject to principle-based reserves at this time.

The LCAS views this proposal for life insurance policies subject to formulaic reserves as a temporary recommendation as conditions surrounding this type of calculation are changing rapidly.

Working Reserve for C-3 RBC Calculation

In developing the proposed approach to a principle-based calculation of C-3 Risk-Based Capital (RBC) the Life Capital Adequacy Subcommittee (LCAS) spent a considerable amount of time addressing the issue of the working reserve used in that calculation. In this context, the term "working reserve" is the assumed reserve used in the projection of accumulated deficiencies supporting the calculation of C-3 RBC. This report summarizes the recommendations of the LCAS in this regard as well as the work that was done in arriving at those recommendations.

1.0 Background

- 1.1 In 2004, the Academy, in conjunction with the NAIC, began working on a principle-based approach for the valuation of life reserves. This principle-based reserve (PBR) approach features:
 - 1.1.1 Use of Own Company Assumptions This better reflects the actual risks of the company.
 - 1.1.2 Gross Premium Valuation GPV considers all cash flows of the contracts.
 - 1.1.3 Stochastic Processes Stochastic processes allow better quantification of risk, particularly for risks with fat tails.
- 1.2 Shortly after the development of PBR was launched, the Life Capital Adequacy Subcommittee began considering how RBC calculations could be modified to be consistent with the new approach for reserves. In many ways, the new principle-based approach seemed more appropriate for RBC calculations as it provides a more detailed calculation of the variability in potential liability costs due to the risks undertaken by the insurer.
- 1.3 Originally, LCAS considered a principle-based approach that considered all risks in the calculation. This method would consider asset default risk equity return risk, mortality risk, interest rate risk, and many other risks in a single stochastic calculation. Many of the variables considered would be stochastically modeled. Other variables, where the risk was less significant or where there is not have enough information about the distribution of the risk to do stochastic modeling, would be established as a deterministic value equal to the sum of anticipated experience and an appropriate margin.
- 1.4 LCAS noted that the only risks required to be modeled stochastically in the proposed PBR requirements were interest rate movement and equity return movement. These two risks have been very volatile over time and they are risks for which a considerable amount of historical data exists.

- 1.5 LCAS also noted that the C-3 component of RBC corresponds well with the risks that were being simulated in the proposed PBR requirements. The current C-3 component for life insurance is only based on interest rate movement. Further, while equity return movement is currently considered in C-1, LCAS noted that the risk associated with equity return movement is more related to loss of value on liquidation on sale of the asset and the concern that the value may not be available when needed to cover benefits. In this sense, equity return movement is more like a C-3 risk than a C-1 risk. (Note also that equities, almost by definition, do not default and that default is the main risk considered by C-1.)
- 1.6 LCAS also noted that principle-based approaches to the calculation of C-3 risk were already in place for fixed annuities and SPL (C-3 Phase I) and variable annuities (C-3 Phase II). C-3 Phase I had been in place for a number of years. Also, at that time, C-3 Phase II had been approved by the NAIC but had not yet been used.
- 1.7 LCAS decided that the best way, in the near term, to make RBC consistent with the new PBR approach, was to redesign the calculation of C-3 to accommodate stochastic simulation of interest rate and equity return movement. All other risks would continue to be evaluated by the current factors.
- 1.8 The current C-3 calculation (except for C-3 Phase I) is factor-based. Factors applied to various business measures evaluate the risk presented by particular products such as UL, term, and permanent life. These factors were developed based on stochastic and other analysis of popular forms of these products. They provide a rough calculation when applied to a particular product in a particular environment.
- 1.9 LCAS asked the Life Capital Working Group (LCWG) to develop the concept. The LCWG started with the work done by the Life Reserve Working Group (LRWG) and modified it as appropriate to serve the different purpose of evaluating C-3 RBC. This analysis required the LCWG to consider differences in purpose and the resulting changes in methodology that might be needed.
- 1.10 The initial LRWG approach to PBR, and consequently the LCWG's starting point, involved projecting cash flows under many economic scenarios, accumulating those cash flows to each projected year end, comparing the accumulated assets to a "working reserve," and discounting the difference between the accumulated assets and the "working reserve" using interest rates that were determined as part of the economic scenario. The calculation started with a current value that was intended to approximate the ultimate reserve.

- 1.11 The determination of the "working reserve" became the object of considerable discussion at the LRWG level. If the working reserve was set as an estimate of the statutory reserve, then the calculation of the minimum reserve could require extra amounts to be set up simply to fund future reserves.
- 1.12 The LRWG decided that since it was clear that the purpose of reserves was simply to provide for future cash flows, it was inappropriate for the calculation to also provide for future reserves. As a result, the working reserve was set to zero for reserve purposes.
- 1.13 When the LCWG considered the "working reserve" issue, it noted that the purpose of capital is different than that of reserves. One alternative considered was that the purpose of capital is to ensure solvency for some period of time at a given level of confidence. Under this view, a working reserve of zero would be inappropriate.

2.0 Purpose of RBC

- 2.1 It is generally agreed that the purpose of RBC is to identify weakly capitalized companies. The main purpose of doing so is to allow time for rehabilitation of the company before it becomes insolvent. Looking at it another way, strong RBC requirements assure that a reasonable amount of assets remain when the company crosses the final RBC threshold.
 - 2.1.1 As a company's financial condition weakens, it will cross the various thresholds that are stated in the RBC regulation. If the company crosses the first threshold, it will be required to demonstrate how it will improve its condition. If it continues to deteriorate, its state regulator will tell the company what it has to do to improve its financial condition. If both the company initiated actions and the regulator initiated actions fail, the company will eventually be taken over by the regulator.
 - 2.1.2 When a company is taken over by a regulator, the regulator's first concern is to make sure policy obligations are met. More often than not, the regulator will seek a company to take over the obligations of the company. In order to induce a successor to take over the company, the regulator will offer the assets of the company, as needed. To the extent those assets are sufficient, the transaction will take place. If the remaining assets are insufficient, the regulator will use guarantee fund money to make up the difference.

- 2.2 The RBC system is a multi-tiered system designed to identify weakly capitalized companies while limiting the amount of work required by all companies. To the extent weak companies are identified, those companies will be required to provide additional, non-formulaic analysis and studies. In this way, the effort needed to produce the numbers and manage the system is focused on those companies that are weakly capitalized.
- 2.3 The RBC system has been in existence since the early 1990's. Historically, the system for C-3 has used factors applied to reserves to get an approximation of the amount of capital that a company needs to cover its C-3 risk. The factors were established by assuming defined mismatches between assets and liabilities, and then modeling results for various sample products to determine the capital needs. More recently the C-3 system was modified to allow for, and then in many cases require, stochastic modeling to determine C-3 requirements for single premium life and fixed annuities. However, the factors still play a role for these modeled products in setting a minimum for the stochastic results.
 - 2.3.1 In determining the factors it was assumed that reserves covered up to one standard deviation of variation and that the required capital should cover the level of variation up to two standard deviations. Thus, the RBC requirement was the difference between two standard deviations of variation and the one standard deviation built into the reserves.
 - 2.3.2 In setting the factors, simulations were done and the final factor was based on the distribution of potential results. The timeframe was chosen in a way that assured that all material C-3 risk was evaluated and varied by product.
 - 2.3.3 In making the calculations underlying the factors, it was assumed that the reserves were neither too high nor too low.
- 2.4 It should be noted that the RBC calculation in total is a rough calculation. Detailed calculations are done but the resulting RBC level is then cut in half for testing purposes. Then, most companies hold three to five times the original amount.
- 2.5 This "roughness" reflects the original intent of RBC to identify weakly capitalized companies. When the original work was done, the system was developed and then calibrated in a way that highlighted those companies that the NAIC representatives were concerned about.

3.0 Theoretical Approach

- 3.1 The purpose of the RBC system is to identify weakly capitalized companies. The LCAS discussed three general ways of implementing this concept:
 - 3.1.1 Economic Approach In the economic approach, a total asset requirement (TAR) is established so that there is a high likelihood that the cash flows will be adequate to cover the benefit and expense payments for which the company is liable. The RBC requirement is then equal to the TAR less the reserves actually held. It might make sense to floor the RBC amount at zero. This approach does not make provision to cover statutory reserves in future durations. As a result, a company with apparently adequate capital today could go insolvent at some point in the future even though all assumptions are met.
 - 3.1.2 Exit Value Approach The exit value approach seeks to assure with a high degree of confidence that there are enough assets on hand in the event of a solvency incident to induce another company to take on the risks presented by the liabilities of the stressed company. In this approach, an estimate of the exit value (e.g.. the present value of cash flows plus a cost of capital margin) would be used as the working reserve, a TAR would be calculated, and the required RBC would be equal to TAR minus the reserves actually held. (Note that the LCAS sees this approach to exit value as distinct from that under consideration by the IASB.) While there is no specific reference to reserves in this method, reserve levels would play a part in determining the cost of capital.
 - 3.1.3 Solvency Approach In this approach the company models the progress of its statutory surplus over time to determine the amount of assets necessary to provide substantial assurance that the company will remain statutorily solvent at each future year-end. In this approach, solvency is determined by comparing the accumulated assets to statutory reserves at each projected year-end.
- 3.2 After much discussion, the LCAS agreed that the concept of incorporating exit value considerations was appropriate from a theoretical perspective. This approach does not directly seek to prevent insolvency but rather it attempts to provide assurance that there are enough assets on hand to induce another risk taker to take the risk. There were a number of reasons for selecting this approach:
 - 3.2.1 As noted in section 2.1.2, the regulator may need to induce another company to take on the failing company's risks. This method is

based on assuring that there are enough funds available to do so. (Although the LCAS recognizes that the regulator may not be aware of the issue or able to take action exactly when the problem occurs.)

- 3.2.2 To the extent that exit value calculations replicate standard industry practices for valuing blocks of business (e.g., actuarial appraisal methods and assumptions), this approach is most consistent with the way companies actually evaluate and execute such transactions. Since inducing takeover is what the regulator needs to do, this approach has appeal.
- 3.2.3 While the economic approach attempts to assure that there are enough funds to cover potential cash flows, this may not be enough to encourage a potential takeover by a stronger company because of the cost of capital associated with reserves and RBC requirements.
- 3.2.4 The solvency approach provides considerable security but at a cost. Setting up capital now to fund future reserve requirements can be expensive and will increase the cost to policyowners. Of course, this cost is necessary if the capital level is appropriate.
- 3.2.5 A key issue in this debate is the cost of redundant reserves. The current formulaic reserves for some products may be considerably higher than they need to be. To the extent that this is true, redundancy in the reserve will eventually be released, providing a source of future working capital. Note that while these reserves will need to be set up in future years, it may not be necessary for the company to provide for future reserve increases as part of the reserve set aside now. However, it does seem to make sense for the company to provide for the capital cost associated with setting up such future reserves.

4.0 Practical Issues with a Theoretical Approach

- 4.1 For computational reasons, it would be desirable to use a single model for purposes of both reserves and capital.
 - 4.1.1 Industry has commented that it is highly desirable from the standpoint of cost and model management to have a single model that can be used for the purposes of both capital and reserve determination.
 - 4.1.2 The use of any non-zero working reserve would be a departure from the proposed PBR approach for life products, and would

necessitate model adjustments. While there may be reasons to use a different working reserve concept, it does complicate the calculations.

- 4.1.3 It is noted that RBC is determined on an after-tax basis. As such, there will be differences in calculations notwithstanding the issue of working reserve definition. In addition, the discounting process may differ between the reserve and RBC calculations.
- 4.2 The calculation of specific types of working reserve can be quite complicated.
 - 4.2.1 The Solvency Approach requires a projection of future statutory reserves. Industry has commented that the projection of certain existing formulaic reserves (notably for UL) is problematic. It has also been noted that the projection of reserves on future policies valued under a principle-based reserve approach would be even more problematic as these would require a stochastic on stochastic calculation.
 - 4.2.2 The Exit Value approach requires the determination of exit value. Exit value is an idea which is simple to state in concept, but difficult to specify as to its calculation. LCAS noted that the concept of exit value is currently under discussion within the context of the proposed IASB Insurance Project.
 - 4.2.3 Under the proposed IASB Insurance Project, current exit value is essentially a hypothetical market value, equal to the present value of future best estimate cash flows plus a margin for the risk associated with those cash flows. The risk margin is intended to be an unbiased estimate of the compensation that market participants would demand for bearing the risk in question. The risk margin is not a shock absorber for unexpected experience and is not meant to enhance an insurer's solvency. The IASB is not expected to prescribe specific techniques for developing risk margins. Rather a discussion document will explain the characteristics of techniques that will enable risk margins to meet their objective. Final project specifications are scheduled to be completed June 2009.
 - 4.2.4 The calculation of Exit Value may not be any less complex than projecting future statutory reserves.
 - 4.2.5 Likewise, the calculation of Exit Value may not be any more difficult than the required calculation of tax reserves for RBC purposes, at least for products with formulaic reserves.

- 4.3 The determination of the working reserve will be a significant driver of capital requirements. If the requirements related to the working reserve calculation are specified in principles rather than formulas, differences in working reserve will create differences in capital requirements between companies. Even with very specific requirements there will be differences.
 - 4.3.1 Reserves on future policies valued under a principle-based reserve approach are based on a company's prudent estimate assumptions. Margins in the assumptions may differ between companies for similar risks / blocks of policies.
 - 4.3.2 Under the Solvency Approach differences in reserve conservatism will drive differences in capital requirements unless standardized requirements, such as the minimums, are used for reserves.
 - 4.3.3 The calculation of Exit Value may differ between companies for similar risks / blocks of policies. Under the Exit Value Approach such differences in exit value determination will drive differences in capital requirements.

5.0 Considerations of Conservatism

- 5.1 There is a need for conservatism beyond ensuring there are assets available just sufficient to pay off the obligations as they come due.
 - 5.1.1 Some degree of margin is necessary to reflect the degree of uncertainty in the cashflows, since they are likely to change due to changes in policyholder behavior when the company is perceived to be in trouble.
 - 5.1.2 Margins for conservatism can be added through assumptions, through the working reserve, or in other ways.
- 5.2 A zero working reserve does not provide any margin against the cost of carrying capital or for operating the company while the obligations are being met.
- 5.3 Excess conservatism in statutory reserves impacts the C3 calculation in at least two ways.
 - 5.3.1 The C-3 RBC amount is calculated as the difference between the 90 CTE total asset requirement and the statutory reserve. The greater the conservatism in the reserves, the lower the difference between the reserves and the 90 CTE total asset requirement, and hence, the lower the C-3 RBC amount (given the same working

- reserve). In effect, conservatism in the statutory reserve serves to reduce the C-3 amount in this way, all other things being equal.
- 5.3.2 The total asset requirement is determined as starting assets plus the greatest present value of the excess of the working reserve over accumulated assets. The higher the working reserve, the higher the resulting total asset requirement, all other things being equal. Using a working reserve equal to the statutory reserve may add too much conservatism and may lead to the following results:
 - 5.3.2.1 On future policies valued under a PBR approach, the more conservatively a company sets its prudent estimate assumptions, the higher the resultant PBR. If the working reserve is equal to the PBR, this leads to a higher total asset requirement and a higher C-3 amount.
 - 5.3.2.2 On existing policies where the formulaic statutory reserve is much larger than the economic reserve, the excess conservatism in the reserve results in a higher total asset requirement and a higher C-3 amount.
- 5.3.3 It is counterintuitive that a more conservative reserve basis leads to higher capital requirements. Some of the working reserve solutions that have been investigated would avoid this counterintuitive result.

6.0 Considerations of Precision

- 6.1 There is no need for a "perfect" calculation of C-3 RBC. An approximation is appropriate and should not reduce the usefulness of the result.
 - 6.1.1 Risk Based Capital is, at best, an approximate calculation. There are many factors used in the formula, and many assumptions. While this report is presenting a possible improvement in the calculation of the C-3 component, other RBC factors will still be on a one-size-fits-all basis.
 - 6.1.2 Furthermore, once the calculation is done, the regulatory apparatus sets the authorized control level equal to one-half of the calculated number. This was done originally as a calibration to reduce the number of companies that would have to do additional testing beyond the simple RBC calculations while still flagging those companies that were perceived to be in difficulty. Theoretically, any material change to the RBC structure should be reviewed and

- the formula recalibrated as deemed appropriate. This has not necessarily been the case over time.
- 6.1.3 The proposed C-3 calculation is based on models and assumptions that may or may not be accurate. There are generators for equity and interest rates that may be accurate representations of the time period on which they are based but may not represent the future very well especially in the tails, which is the focus of RBC. There are assumptions for policyowner behavior in the tails of a distribution that have never been visited before. While companies are able to calibrate their models and assumptions to what is known, knowledge of the past is limited and knowledge of the future is nonexistent.
- 6.1.4 RBC is neither a balance sheet nor income statement number. The C-3 amount is only one component of a risk measurement system intended to identify weakly capitalized companies and serve as a regulatory tool.
- RBC is neither designed nor intended to quantify the appropriate level of capital for a company. As such, the RBC calculations need to consider the appropriate balance of precision and cost involved in the calculations versus the value of the information produced by the calculations.

7.0 Other Considerations

7.1 It is desirable that the proposed C-3 calculation be equally applicable to both life insurance and annuities. It is also desirable that the proposed C-3 calculations provide a consistent measure by product and not induce companies to reinsure or otherwise transfer business out of the NAIC's jurisdiction.

7.2 Consistency by risk

7.2.1 Time Horizon. It is desirable that in the long term, each risk factor be measured over a consistent time horizon. The existing RBC framework was developed with factors applicable to various categories of risk. The factors were developed over specific time horizons felt appropriate to the risks but not necessarily the same for each risk factor. The proposed C-3 calculation captures the risk over the entire projected lifetime of the policies inforce. It is noted that this may be longer than the time horizon considered by other risks and may not be entirely consistent with the capital and solvency work under development in the International community.

7.2.2 Risk Assurance Level. It is desirable that in the long term, each risk factor be measured at a consistent risk assurance level. The existing RBC factors were developed to cover specific risk assurance levels. The proposed C-3 calculation sets the risk assurance level at the 90 CTE.

8.0 Approaches to Working Reserve

- 8.1 Approaches considered and limitations
 - 8.1.1 Zero working reserve. A zero working reserve provides the truest "economic" view as it considers only cash flows and excludes accounting accruals. For this reason, some company risk managers prefer this approach for the quantification of their internal capital requirements and "economic capital" metrics. Because it excludes accounting accruals, this approach does not recognize reserves directly in the determination of the total asset requirement. As a result, the total asset requirement reflects only the need to mature the obligations and does not consider future interim solvency. The resultant amount of assets may not be sufficient to induce another insurer to take over the risk.
 - 8.1.2 Exit Value. In the exit value approach, the actuary would develop an estimate of the value required to induce another company to take on the risk. This could be done in a number of different ways but none of them appear to be easy. It is likely that this calculation would be no easier than estimating a principle-based statutory reserve.
 - 8.1.3 Estimate of statutory reserve. Projection of certain current formula reserves and future principle-based reserves may be difficult for some benefits and policies. In this method, the greater the conservatism in the current formula reserves and margins underlying the future principle-based reserves, the greater the resultant capital requirement.
 - 8.1.4 Cash Surrender Value. In many cases cash surrender values are similar to reserves. In others, they bear little relationship to each other.

9.0 Other Alternatives Considered

9.1 All of the considerations thus far in this paper are based on calculating a total asset requirement and subtracting the current reserve to calculate C-3. The LCAS also considered one other alternative:

9.1.1 90CTE less 65CTE. In this approach, the actuary would determine the distribution of potential results using stochastic methods and then calculate C-3 RBC as the difference between the 90CTE and 65CTE amounts. In this approach, there really is no working reserve. This approach is inconsistent with a total balance sheet approach to capital and may not address the difference between 65 CTE and the actual reserve being held. After consideration, LCAS decided not to pursue this approach for the reasons cited.

10.0 Modeled Results

- 10.1 As part of its work the LCWG modeled RBC results for term, UL with secondary guarantees and traditional participating life using both the current statutory reserve (STAT) and the cash surrender value (CSV) as the working reserve. These results showed:
 - 10.1.1 Term results were insensitive to the working reserve held. The resultant C3 RBC was zero for working reserves equal to either STAT or CSV. What seems to be happening is that the margins in the STAT reserves are large enough that when released, they cover the variations in experience from the simulation of market returns at the RBC CTE level. This is because the margins are quite large relative to the investment component for term.
 - 10.1.2 UL results were also insensitive to the choice of working reserve. Again, the RBC needed was zero for both STAT and CSV. Similar forces seem to be at work for UL SG as for term.
 - 10.1.3 Results for traditional par life were also relatively insensitive to the choice of CSV or STAT. In this case the needs were greater than zero but not much different.
- 10.2 The results of this modeling work were published in a September 2007 Academy report from the Life Capital Work Group, *Report on Preliminary Modeling Results*.

11.0 Recommendation

- 11.1 The LCAS recommends that the working reserve be set equal to the cash surrender value (CSV) for life insurance policies using formulaic reserves. This includes all currently inforce business.
- 11.2 Considerations in settling on CSV for policies with formulaic reserves include:

- 11.2.1 LCAS believes that, from a purely theoretical perspective, the best method is the exit value method but recognizes that this is a very difficult concept to deal with computationally. In addition, the concept is, as yet, undefined. As a result, the LCAS felt that it was appropriate to seek a compromise solution involving a computationally friendly approach.
- 11.2.2 Since the use of exit value is not a practical solution, the LCAS decided that a reasonable approximation to exit value would be the next best approach. This led to considerations of statutory reserves, CSV and other concepts.
- 11.2.3 LCAS was swayed by the difficulty in actually calculating either the statutory reserve or any other specific reserve-type values. For some products, the calculation of formulaic statutory reserves would be relatively simple, but for others, notably UL, the calculation would be quite difficult.
- 11.2.4 The modeling results show that the use of CSV provides an acceptable result. Use of STAT would be more conservative because statutory reserves are generally greater than exit value. The use of CSV provides a slightly lower result than STAT.
- 11.2.5 Use of CSV has an intuitive appeal in that it provides an approximation of the amount of assets needed to meet maximum withdrawal demands in any projection year. This is an important consideration because, as stated in 5.1.1, cash flows are likely to change due to changes in policyholder behavior when the company is perceived to be in trouble.
- 11.3 The LCAS has decided not to recommend a solution to the working reserve issue for principle-based reserve policies at this time. The subcommittee needs to give more thought to the development of an acceptable solution when the margins in reserves are not nearly as great as they are today.
- 11.4 The LCAS has decided not to recommend a solution to the working reserve issue for annuities at this time.
- 11.5 The LCAS views this proposal for policies subject to formulaic reserves as a temporary recommendation. There is much activity on the international front working towards a method for calculating exit value. Current indications are that this could take two years or more. When this work has been completed the LCAS may wish to reconsider our working reserve.