



**ASSOCIATION ACTUARIELLE INTERNATIONALE
INTERNATIONAL ACTUARIAL ASSOCIATION**

January 14, 2004

Mr. Helmut Engels
Solvency and Actuarial Issues Subcommittee
International Association of Insurance Supervisors
c/o Bank for International Settlements
CH-4002 Basel, Switzerland
(Email: hengels@osfi-bsif.gc.ca)

Dear Mr. Engels,

Re: Draft Guidance Paper on Stress Testing

Further to my predecessor's letter to you of July 16, 2003 forwarding the International Actuarial Association's (IAA) draft comments on the Draft Guidance Paper on Stress Testing released April 10, 2003, I am pleased to confirm that the IAA's due process is now complete. The draft comments were approved by the Full Member associations for release as an IAA public statement, subject to certain revisions which are incorporated in the attached submission.

A copy of the final document is enclosed for your files.

Yours sincerely,

Luis Huerta
President

Attachment

cc: Mrs. Catherine Lezon (Email: catherine.lezon@bis.org)
Mr. Jukka Rantala (Email: Jukka.Rantala@etk.fi)

**A Commentary on the
DRAFT GUIDANCE PAPER ON STRESS TESTING
Released by the International Association of Insurance Supervisors: April 2003**

International Actuarial Association

The International Actuarial Association (the “IAA”) represents the international actuarial profession. Our fifty Full Member actuarial associations represent more than 95% of all actuaries practicing around the world. The Full Member associations of the IAA are listed in an Appendix to this statement. The IAA promotes high standards of actuarial professionalism across the globe and serves as the voice of the actuarial profession when dealing with other international bodies on matters falling within or likely to have an impact on the areas of expertise of actuaries. The IAA appreciates the opportunity to provide comments on this IAIS document.

Due Process

These comments have been prepared by a committee of the IAA, the members of which are listed below by name and association. These comments which were circulated for approval to the Full Member associations of the IAA as part of our due process procedures have been approved as a public statement of the IAA.

Members of the IAA Insurance Regulation Committee

Jukka Rantala	Chairman
David Sandberg	Co-Vice-Chairman
Félix Arias Bergadà	Col.Legi d'Actuaris de Catalunya
Andrew Chamberlain	Institute of Actuaries
Morris Chambers	Canadian Institute of Actuaries
Isagani de Castro	Actuarial Society of the Philippines
Nelson Emiliano Costa	Instituto Brasileiro de Actuária
Joubert Fereira	Actuarial Society of South Africa
K.S. Gopalakrishnan	Actuarial Society of India
David Hartman	Casualty Actuarial Society
Gyula Horvath	Hungarian Actuarial Society
Thomas Karp	Institute of Actuaries of Australia
Toshihiro Kawano	Institute of Actuaries of Japan
Jean-Michel Kupper	Association Royale des Actuaire Belges
Won How Lo	Actuarial Institute of the Republic of China
Helge-Ivar Magnussen	Den Norske Aktuarforening
Bruce Maxwell	Society of Actuaries in Ireland
Dina Mikelson	Latvijas Aktuaru Asociacija
Ibrahim Muhanna	Cyprus Association of Actuaries, Lebanese Association of Actuaries
Gennaro Olivieri	Istituto Italiano degli Attuari
Ian Perera	New Zealand Society of Actuaries
Thierry Poincelin	Institut des Actuaire
Angus John Robertson	Faculty of Actuaries
Norma Alicia Rosas	Colegio Nacional de Actuarios A.C.
Rolf Stölting	Deutsche Aktuarvereinigung e.V.

Simon Van Vuure
Stuart Wason
Robert E Wilcox

Het Actuarieel Genootschap
Society of Actuaries
Conference of Consulting Actuaries

IAA Comments

The Insurance Regulation Committee of the International Actuarial Association has reviewed the April 10, 2003 draft of the captioned paper and offers the following comments. The IAA believes that some of the comments may be relevant for Solvency Control Levels Guidance Paper, Draft January 2003, as well.

General remarks

The IAA appreciates the opportunity to respond to this paper at a draft stage. Regular stress testing of insurers' financial strength is critical to the working of proactive supervision and risk management by the supervisors and by the companies themselves. The IAA notes that the actuarial profession can and is ready to offer its contribution to design and use of stress tests.

Overall, we believe that the IAIS has identified essentially all the major areas to be addressed in stress testing and setting control levels. We agree with the general direction of the proposed guidelines, but will provide some comments.

A clear recommendation of the guidance paper is that the insurers do perform stress tests, and the IAA endorses this recommendation. However, the paper is not very precise on what status the stress tests should have in the supervisory process. For example, in paragraph 8 it is stated that the supervisor should only receive the results of the most material stress tests and the critical assumptions underlying them, but nothing is stated about whether, and under which circumstances, the supervisor should require the insurer to perform stress testing. Neither is Chapter XIV (Use of the Results by Supervisors) clear on this point. The IAA believes that stress testing, with critical assumptions set by the regulators (or by actuarial standards) should be recommended as an obligatory practice at least in cases where the capital requirements are not sensitive to insurers' risk profiles.

The design of stress tests is extensively discussed in Chapter V. That chapter lists a number of risks and factors to be taken into account in stress tests. The IAA notes that the list is rather long and can be very helpful, e.g. when the insurers are building their own internal risk models. However, many of the factors (and even risks such as operational risks) are not easily quantifiable, and the great number of factors may lessen the transparency of the tests and even conceal the most important findings rather than add value to the tests. The IAA believes that the stress tests to be used for supervisory purposes are most beneficial when they are condensed to a limited number of the most important risks and factors with relatively straightforward testing assumptions. This is especially important if the results of the stress tests are made public. Stochastic and other risk models can then be used for more refined analyses.

The IAA thinks that the investigation and modelling of available management actions are vital elements of stress testing. If stress tests indicate that the insurer is in an unsatisfactory financial

condition, corrective measures should be taken. On the other hand, if the stress tests assume the company management to remain passive, the resulting capital requirements may become unduly high. Therefore the IAA welcomes the discussion in Chapter 10.

Target capital levels and stress testing are usually discussed in the context of stable and benign financial conditions. This is appropriate as it ensures that adequate capital reserves are established when they can be afforded so that risks can be managed when adverse conditions emerge.

However, it is also important that regulators consider in advance how to react when extreme adverse conditions threaten the structure of the financial markets as a whole. The recent severe stock market falls would be an example of such an extreme scenario. In such adverse circumstances, regulators need to assess whether target capital requirements should be relaxed in a structured and controlled way.

It may be that regulators are prepared to allow the failure of one or two insurers that are undercapitalised or perhaps vulnerable because of the nature of the guarantees in their portfolios. However, at some point, regulators will wish to introduce flexibility into the capital requirements in order to maintain confidence in the structure of the financial system. The manner in which this flexibility is introduced should be discussed with the insurance industry of the territory in advance of any adverse circumstance arising so that insurers can scenario test accordingly.

If the adverse conditions become extreme, the ability of a significant proportion of insurers to honour their contractual commitments will become questionable. In these extreme circumstances, the regulator should have the legal authority to suspend temporarily the contractual rights of policyholders in order to defend the integrity of the financial system as a whole. Alternatively the contractual rights might be converted into constructive obligations to be honoured when financial conditions recover. The legal and contractual structure of insurance regulation should recognise the need for such powers well ahead of any extreme financial condition emerging. It is important that care be taken that these powers are based on such criteria, that the insurance companies are not encouraged to mismatch their assets and liabilities, safe in the knowledge that the regulator would take action to bail them out.

The following are our detailed comments.

Specific Remarks

Paragraph 11

We find the discussion in paragraph 11 to be somewhat obscure. Referring to our general comment above, we believe that supervisors should always be able to require the performance of stress tests and set assumptions for the tests. Supervisory actions then depend on the results of the tests. We think that the risk level should be the same for all insurers if the higher risk level is defined as default probability or as a similar measure. If the risk level is defined by volatility type measures, it can vary according to the capital available.

Paragraph 19 and 20

This paragraph states that access to the expertise and technology required to design and perform stress tests may involve, among others, actuarial personnel. We strongly recommend that the word “may” be changed to “shall”. Actuaries should also be mentioned in paragraph 20.

Paragraphs 27 and 31

On the issue of stress test design, we note your suggestion that the actuarial profession might contribute to developing guidance. We will canvass our member organisations to identify the expertise available in testing designs and we will contact you with proposals of how we may be able to support your work.

Paragraph 28

We accept that an insurer’s solvency position, lines of business and distribution systems, as well as investment policy will affect the design of the stress test. However, an insurer’s current position within the market or within the group or business plan is unlikely to change directly the stress tests required to assess the risk mitigation achieved. Accordingly, we would suggest that the third, fourth and sixth bullet points in paragraph 28 be reviewed.

Paragraph 29

We are less convinced that an insurer’s risk tolerance directly changes the design. If an insurer were to be in relatively risky position, it should put measures in place to avoid or reduce risk. This would not, however, alter the need to assess how well these measures work.

Paragraph 33

In addressing individual risk types, we note that with regard to underwriting risk, premium adequacy is heavily dependent on the terms of the policies, particularly any options or guarantees granted, and this should be recognised.

Also with regard to underwriting risk, we note that the reference to the business cycle is ambiguous (i.e., does it imply that more capital should be reserved at the bottom of the cycle or that low premiums should be accepted as inevitable?). This should be clarified.

We also note that the factor of “the frequency and size of large claims” mentioned in paragraph 35 on technical provisions, should be included in the list of paragraph 33 as well.

Paragraph 35

This paragraph (and paragraph 33 as well) seems to refer mainly to non-life insurance. It also should refer to the risks of life and health insurance especially mortality and disability risks and risks out of cancellation, the latter of which depend on variations in interest rates.

With regard to individual risk, it may be worth mentioning in the “deterioration of technical provisions” section, the impact of increasing annuitant longevity and the different guarantees and options to policyholders.

Paragraph 36

In the section on market risk, we believe it is worth mentioning the impact of credit rating downgrades on the value of assets. We believe this is best dealt with under market risk rather than under the credit risk heading because the latter deals with the credit risk of specific debts to the insurer.

Paragraphs 39 and 40

Regarding operational risk, we believe this is well described but note that the glossary definition seems less comprehensive than the subsequent description. The definition of operational risk should be extended to include legal, political, technological and social risks. Operational risks might also include the risk of pricing errors on units for unit-linked (or ‘variable’) policies.

Paragraph 41

In relation to Group Risk, the fourth bullet point in paragraph 41 could be extended to refer to the implicit support of group companies through the re-allocation of group overheads towards the insurance entity.

Paragraph 43

It is not quite clear what is meant by low and high risk profile of an insurer. For example, frequent stress testing may also be appropriate for an insurer with a low risk profile if its available capital is low in relation to its risks. The test design should also consider the speed with which a situation might deteriorate if an acute risk materialised.

Section VII

We believe that the process will be strengthened by considering the impact of adopting a different risk assessment model, thereby gaining insight into the sensitivity of the results to the particular risk model adopted.

Paragraph 50

While we strongly agree with the view that statistical models based on extrapolation of past experience into an unknown future have a limited ability to accurately capture what happens in exceptional circumstances, we note that “TailVar” (also known as Policyholders’ Expected Shortfall”) is more frequently used than “VaR”.

Paragraph 54

We fully endorse what is stated in this paragraph. Especially when catastrophic type events are analysed, models should be based more on the structure of the risk events than on past statistics only.

Paragraph 70

We note the very different time frames that apply between banks and insurers, which highlight the need to tailor separately the regulatory approaches to the two industries.

Section XIII

The problem with public disclosure is that it may lead to a number of issues, which may unnecessarily impact public confidence. This does not rule out all disclosures, but rather

requires a level of restraint. There is clearly a need for regulators to have access to some confidential stress testing information over and above that which it might be appropriate to require insurers to disclose. Therefore, we suggest that stress tests can be of two types: a limited set of published tests with uniform testing assumptions, carefully designed to improve public understanding; and in addition more detailed confidential tests. In making decisions on the level and form of public disclosure the specific needs and circumstances of each jurisdiction should be taken into account.

In spite of all cautiousness, in some cases disclosure may still produce a "run on bank" type risk; therefore there should be proper supervisory powers to mitigate possible adverse consequences. For example, a run on a life insurer could be avoided by temporarily banning policyholders from cashing their policies. This risk should also be taken into account in product design.

Concluding remarks

The Insurance Regulation Committee is grateful for the opportunity to comment on this draft and we are available to elaborate on any of the points raised above.

Appendix

Full Member Associations of the IAA

Consejo Profesional de Ciencias Económicas de la Ciudad Autónoma de Buenos Aires
(Argentina)
Institute of Actuaries of Australia (Australia)
Aktuarvereinigung Österreichs (AVÖ) (Austria)
Association Royale des Actuaire Belges (Belgique)
Instituto Brasileiro de Atuária (IBA) (Brazil)
Canadian Institute of Actuaries/Institut Canadien des Actuaire (Canada)
Cyprus Association of Actuaries (Cyprus)
Česká Společnost Aktuárů (Czech Republic)
Den Danske Aktuarforening (Denmark)
Egyptian Society of Actuaries (Egypt)
Eesti Aktuaaride Liit (Estonia)
Suomen Aktuaariyhdistys (Finland)
Institut des Actuaire (France)
Deutsche Aktuarvereinigung e.V. (DAV) (Germany)
Hellenic Actuarial Society (Greece)
Actuarial Society of Hong Kong (Hong Kong)
Magyar Aktuárius Társaság (Hungary)
Félag Íslenskra Tryggingastærðfræðinga (Iceland)
Actuarial Society of India (India)
Society of Actuaries in Ireland (Ireland)
Israel Association of Actuaries (Israel)
Istituto Italiano degli Attuari (Italy)
Institute of Actuaries of Japan (Japan)
Japanese Society of Certified Pension Actuaries (Japan)
Latvijas Aktuaru Asociācija (Latvia)
Lebanese Association of Actuaries (Lebanon)
Persatuan Aktuari Malaysia (Malaysia)
Colegio Nacional de Actuarios A. C. (Mexico)
Het Actuarieel Genootschap (Netherlands)
New Zealand Society of Actuaries (New Zealand)
Den Norske Aktuarforening (Norway)
Actuarial Society of the Philippines (Philippines)
Polskie Stowarzyszenie Aktuariuszy (Poland)
Instituto dos Actuários Portugueses (Portugal)
Academia de Actuarios de Puerto Rico (Puerto Rico)
Singapore Actuarial Society (Singapore)
Slovensko Aktuarsko Drustvo (Slovenia)
Actuarial Society of South Africa (South Africa)
Col.legi d'Actuaris de Catalunya (Spain)
Instituto de Actuarios Españoles (Spain)
Svenska Aktuarieföreningen (Sweden)

Association Suisse des Actuaires (Switzerland)
Actuarial Institute of the Republic of China (Taiwan R.O.C.)
Faculty of Actuaries (United Kingdom)
Institute of Actuaries (United Kingdom)
American Academy of Actuaries (United States)
American Society of Pension Actuaries (United States)
Casualty Actuarial Society (United States)
Conference of Consulting Actuaries (United States)
Society of Actuaries (United States)