



**ASSOCIATION ACTUARIELLE INTERNATIONALE  
INTERNATIONAL ACTUARIAL ASSOCIATION**

August 2, 2006

Mr. Yoshihiro Kawai  
Secretary General  
International Association of Insurance Supervisors  
c/o Bank for International Settlements  
CH-4002 Basel, Switzerland

Dear Mr. Kawai,

**Re: IAIS Draft Supervisory Standard on Asset Liability Management**

In response to the request for comments on the IAIS Draft Supervisory Standard on Asset Liability Management, I am pleased to transmit on behalf of the International Actuarial Association (IAA) our comments and recommendations.

These comments have been prepared by the Financial Risks Committee of the IAA. If, upon reading these comments, you identify any points that you would wish to pursue, please do not hesitate to contact the chairperson of the committee, David Kingston, or any of the other members of the committee. The IAA will be pleased to develop these ideas further with you.

Yours sincerely,

Yves Guérard  
Secretary General

cc: Mr. Bernard Dupont  
IAIS Secretariat

Attachment: Comments

**A Commentary on the  
IAIS DRAFT SUPERVISORY STANDARD ON ASSET LIABILITY MANAGEMENT  
Released by the International Association of Insurance Supervisors: May 31, 2006**

**International Actuarial Association**

The International Actuarial Association (the “IAA”) represents the international actuarial profession. Our fifty-five 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 the Financial Risks Committee, the members of which are listed in an Appendix to this statement. It has also been subject to the due process required for it to constitute a formal view of the IAA, and will be posted to the IAA’s official web site.

**General Remarks**

The IAA appreciates the opportunity to respond to this paper at a draft stage. We would like to commend the IAIS on the draft standard. In our view the draft standard has addressed a comprehensive range of valid issues on asset liability management for the insurance industry and clearly much thought has been applied to making the standard applicable to practical management application within the industry. Hence, in our view, it is intelligible to the vast majority of insurers.

**General Comments**

We have a number of broad issues upon which we would like to give our feedback:

***1) Life/Non-life weighting***

We note that the requirements in the standard are intended to apply to both life and non-life insurers. In our view the standard is drafted predominately from a life perspective. Although life and non-life insurers will employ the same type of broad strategic thinking to asset liability management, the detailed strategies may be significantly different. Further, there are several more tactical management issues for which the non-life approach needs highlighting, since it may be completely different to life ALM tactics. For instance, non-life business differs significantly from life in areas such as term to settlement of liabilities and uncertainty of outcome for some areas of risk.

***2) Operational Risk***

The draft standard appears unsure as to whether the full enterprise risk is included. In section 3 of the introduction the scope appears to indicate limitation (rightly, in our view) to financial risks, but then goes on to recognise that a more complete range of risks should be taken into account (e.g. in sections 5 and 24).

### **3) *Credit Risk***

The draft standard does not give the same prominence to credit risk as it does to other key areas of risk (e.g. market risk and underwriting risk). From a non-life perspective at least, credit risk would merit a higher rating than liquidity risk, for instance.

### **4) *Sophistication of Markets***

The draft paper mentions the constraint in many “less developed markets” provided by restrictions in available assets. It should be noted that the level of sophistication of any market is often in the eye of the beholder (i.e., there may be patches of naivety in otherwise apparently well-developed markets).

### **5) *Comparing mismatched assets and liabilities***

It would be useful to add something on consistency of valuing assets and liabilities. It is the exception that assets and liabilities are close to a matched position – this is usually impossible and often undesirable. It is important to use market consistent bases in valuation, particularly for assets and liabilities which have no clear or approximate market value. The choice of interest rates used for discounting is a particular concern; these should be consistently chosen, in both stochastic and deterministic models.

### **6) *The Target of the Paper***

We note that the main messages from the paper are delivered in the first four sections, together with appropriate support on controls and reporting from current section 8. It may be considered that much, if not all of sections 5 to 7 may be omitted from a global supervisory standard as delving more (and therefore perhaps too) deeply into detailed management issues.

There are also a number of edits that, in our view would help understanding of the paper, relating mainly to consistency of limitations and constraints applied to statements used within the paper. We have not commented specifically on these, but are happy to provide detailed feedback if requested (e.g. the need for words like “usually” – instead of the implied “always”, “where appropriate” to be inserted in a couple of places etc.).

## **Specific Comments**

In addition to the above general comments we have the following more specific comments on the draft standard.

### **Paragraphs 1-3**

This provides an appropriate introduction to the supervisory standard.

### **Paragraph 4**

We are comfortable with the definition of asset liability management, and are particularly pleased that there is no specific reference to “matching.”

**Paragraph 5**

With respect to “Essential Criteria – a”: not all risks can be measured. In some cases, order of magnitude estimates are the best that can be obtained. Our suggestion is to add the words “(where possible)” after the word “measuring.” A conditional usage of asset-liability matching also needs to be recognized in *ICP 21: Investments*.

**Paragraph 6**

No comment.

**Paragraph 7**

It is noted that this is aimed almost exclusively at life insurers. An appropriate balanced comment needs to be added to incorporate non-life insurers’ purpose in using ALM (e.g. “Non-life insurers first started looking at ALM in an attempt to manage more appropriately the volatile outcomes from some areas of the business.”).

There is also the need to include credit risk specifically in the last sentence. Credit risk will impact the balance sheet and should be included in ALM. It may be addressed as a silo, but should still be assessed as part of the ALM function. This is critical for a non-life insurer, where there may be concentrated exposure to reinsurers and premium debtors.

**Paragraph 8**

No comment.

**Paragraph 9**

The first sentence could be read to imply that some insurers may wish to use ALM to eliminate risk. This is clearly naïve and the potential for any such interpretation should be removed. Also, there is **not** always a link between risk and return. Some risks do not attract a premium and should be minimised (subject to cost). Operational risk is one such type of risk (and with which the draft standard appears to include in its scope). Asset concentration risk is another. In fact, all asset pricing models over the last forty years segregate risk between rewarded and unrewarded (systemic and specific) risk. We suggest that the first sentence read: “While reducing risk is a desirable goal, (and unrewarded risk in particular should be minimized), it must be kept in mind that aggregating and managing risk is the *raison d’être* for the existence of insurance companies.”

**Paragraph 10**

Again this paragraph is very life insurance focused. An extra paragraph could be inserted after this paragraph to include some of the non-life considerations (e.g. examination of type and term of asset to deal with changes in the length of tail of claims and the impact of inflation on claims).

**Paragraph 11**

This paragraph implies that the most sophisticated markets may include a sufficient range of assets to cope with the management of all liabilities. This is not true (even for the most developed of markets) and should be specifically explained. All economies (markets) have illiquid areas of the market, and the more innovation in an economy the more illiquid assets (i.e. mispriced investment opportunities) there will be. Exchange Traded Funds (ETF's) and credit

default swaps are recent examples. When launched these were illiquid, with only the proprietary vendor offering liquidity. Over time they become more liquid. We suggest that the words, “A significant external constraint ... financial markets” are replaced with: “A significant constraint on any ALM process is the liquidity of the underlying assets, liabilities or contracts which may compromise the ability to price, measure and hedge exposures.”

**Requirement I** is apt, although it may be considered a little too broad. Better focus may be obtained by converting the current single sentence into two or three sentences.

### **Paragraph 12**

Here there is some confusion regarding the risks to be covered. “All material risks affecting assets and liabilities” are mentioned, but later on (in Requirement III) only a subset is assessed.

### **Paragraph 13**

No comment (but see comment on Requirement II below).

### **Requirement II**

The reference to economic value is welcomed, but for observable asset prices the market price and well-known sensitivities are indeed more straightforward than projecting cash flows. Pricing models for non-observable market prices/economic values should be calibrated to appropriate observable market prices.

Projecting future cash flows only leads to an economic value if the proper discounting factor (risk-neutral or stochastic deflators) is also used in combination with a market calibrated scenario generator. Nowadays traditional (embedded value) models with a fixed and company-specific discount factor should be dismissed for ALM modeling.

Requirement II is in our view somewhat of a non-sequitur; one can assess the risk of so-called “risk free” bonds without identifying cash flows, using formula for duration and convexity. Cash flow matching is one risk management technique to control interest rate risk, but it is not particularly effective, nor efficient, for any but simple cash flows.

We recognize that cash flow testing is common in the United States but other techniques are required and used elsewhere. For instance, delta hedging may be market best practice. Matching General Insurance expected liability cash flows is almost a complete waste of time because of the extent of the variability of those cash flows, both in terms of timing and amount. We suggest that this requirement be rewritten to encompass the full range of insurance products, e.g., “ALM should be based on economic value and should therefore use a model that recognizes changes in cash flows, and changes in the *economic value* of those cash flows, that will arise for a range of plausible scenarios. Where available, values should be derived by direct observation or by portfolio replication arguments. They should also take into account the *specific variability* in cash flows that are inherent in some products (e.g. products with exposure to catastrophe risk).”

**Paragraph 14**

The distinction in the document between market and underwriting risk could be made clearer. It may be better to model financially motivated policyholder behaviour as part of market risk, with behaviour motivated by other considerations as part of underwriting risk. For example, variations in lapse behaviours may usually be assumed to include both a financially motivated element and a more random element attributable to a variety of non financial influences.

**Requirement III** is fine provided that credit risk (i.e., credit default, not credit spread risk) is added to the list of key areas of risk. Some consideration should also be given to including Economic Risk, being risk of changes in cash flows arising from changes in economic activity. This is somewhat of a specialist area, e.g. mortgage guarantee insurance and credit insurance in general, but is probably not otherwise covered within the draft standard.

**Paragraph 15**

No comment. An extra paragraph is needed to deal with credit risk.

**Requirement IV** needs to include the requirement for credit risk metrics.

**Paragraph 16**

This provides a good example of how embedded options need to be carefully considered in terms of the underwriting risk component of asset liability management. Consideration needs to be given to the additional usage of a non-life example (for instance the management of long tailed and variable claims liabilities, such as asbestos-related claims or some other reinsured classes of liability business)

**Paragraph 17**

No comment.

**Requirement V** is perhaps lacking in terms of “best practice.” Best practice would require that the risks be identified, quantified, and risk mitigation strategies be in place. You should be able to hedge a risk in all circumstances. One problem here is the common thought that you can insure a risk at current price in stressed circumstances. The cost of put options goes up in severely stressed markets.

**Paragraph 18**

Liquidity is not constant. We suggest the words: “and varies with market conditions” be added.

**Paragraph 19**

No comment.

**Requirement VI** – It may be useful to note that too stringent a liquidity requirement, such as a deposit floor, may cause conflict with asset liability management.

**Paragraph 20-21**

Provides a good description of the Board level view of risk tolerance and requires no augmentation or amendment.

**Requirement VII** is apt.

### **Paragraphs 22-23**

These paragraphs are fine in describing the monitoring of risk.

### **Paragraph 24**

See the earlier point about the introduction of operational risk into ALM management considerations. There is also perhaps some confusion between risk tolerance and risk mitigation. For instance, in our view, a limit of 10% to sub-investment grade debt is not an expression of risk tolerance – it is a strategy to ensure that the risk tolerance is not breached. A risk tolerance would be “not lose more than X% of the investment portfolio” due to credit downgrades/defaults, assuming one in twenty year adverse credit default rates. A back test may suggest that limiting 10% of the portfolio to sub-investment grade will meet this tolerance – hence the *strategy* to meet the *risk tolerance*.

### **Paragraphs 25-32**

In our view, these paragraphs dig down to the next level of detail in terms of asset liability risk management. Although it may be considered that the ALM approach by line of business and the mechanics used by the company to manage the risk, equally we feel that it may be regarded as an area in which specific supervisory comment is not necessary. (Perhaps these paragraphs travel the distance from principles to rules?) Similarly the **requirements VIII, IX and X** may be seen as too detailed. Paragraph 26 perhaps reveals the disadvantage of such detailed comment in a standard. Some (most?) classes of non-life business do not fit the criteria in this paragraph. Presumably we are not to conclude that such exclusion means that business of this type has no ALM strategy requirement?

### **Paragraphs 33-40**

Whilst a section on controls and reporting is, in our view, necessary, again it may be considered that too much prescriptive detail is included in this section. For instance in relation to section 39 it may be taken as reading that the control system should be tailored to meet the level of sophistication in the monitoring and control activity.

## **Draft Issues Paper**

### **Paragraph 3**

As for all other investment risks mentioned, an insurer is only exposed to stock, real estate and other asset value declines, as far as these risks are not mitigated to the corresponding insurance liabilities (e.g. stock performance linked profit sharing).

### **Paragraph 49**

Money duration: Money duration and money BPV are more relevant if the asset and liability amounts differ, e.g. when asset market value = liability deposit value > liability economic value.

**Paragraphs 38-57** are not balanced if several formulas are included regarding duration, but none for the other risk measures.

**Paragraph 56** gives the impression that the IAIS is not in favour of VaR, which may be unintended.

**Paragraphs 79-96**

Insurance supervisors in many jurisdictions are still strongly against the use of derivatives, even if they would help to mitigate risks. IAIS supervisory standards that acknowledge and describe the added value of derivatives as hedging instruments are highly welcome.

**Conclusion**

The IAA appreciates the opportunity to provide input to the development of this IAIS standard and we would be pleased to cooperate with the IAIS in further developing the subject. Please feel free to contact this Committee if you have any questions or other comments on the issues raised in this note.



**Members of the IAA Financial Risks Committee**

Thomas David Kingston	Chairperson
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**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)  
Institut des Actuaire de Côte d'Ivoire (Côte d'Ivoire)  
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Deutsche Aktuarvereinigung e. V. (DAV) (Germany)  
Hellenic Actuarial Society (Greece)  
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Japanese Society of Certified Pension Actuaries (Japan)  
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