The solvency framework review, presented by Mr Emile Stipp, DH

Mr Stipp opened his address by stating that a solvency review had been on the table since 1995.

He said that the current 25% solvency requirement, whilst simple and easy to calculate, was brought in in 1958 in the Netherlands but that the rationale for this formula was no longer relevant.

The disadvantages of the current system include:

- It does not account for the actual risk that a scheme faces;
- Schemes which priced for deficits could hold lower reserves;
- High reserves are inefficient and costly.

He added that while other insurers could take reinsurance, medical schemes could not.

He also stated that the only source of income for medical schemes is derived from members and when medical schemes increased their premiums, they risked the loss of young and healthy members.

Mr Stipp commented that the initiative to review the current framework and consider a Risk Based Capital (RBC) model had come from the CMS and added that both the CMS and ITAP had developed RBC frameworks, which he would compare during his presentation.

He stated that the objective of ITAP's framework was to develop an internal model for use by CMS to prospectively identify medical schemes at high risk of failure and to highlight schemes for further investigation, in order to allow CMS to intervene timeously. He suggested that the ITAP framework should be extended to become the full RBC model.

He said that the main risks facing schemes included, their liability; their operational risks; and, their assets and further explained that if a scheme invested all its assets in a risky asset class then they would need more assets. He added that the RBC assesses risk associated with assets.

He said that IBNR was the main liability facing a scheme and to the extent that this is underestimated, the solvency must cover this.

Mr Stipp then outlined the differences between the ITAP model and the CMS model:

Model features:

- ITAP model: simpler, objective, based on data
- CMS model: complex, subjective, certain data unavailable

Time horizons:

- ITAP - 1 year
- CMS - 3 year business risk. 1 year asset risk

Probability of loss:

- ITAP – 1 in 200 years, i.e. schemes must have enough for the 1 in 200 year event
- CMS – 1 in 100 over 3 years. This is less stringent than other markets.

Liability risk – ITAP proposal:

- Liquidity risk:
  - schemes need to hold capital to fund claims and expenses in months where contributions are insufficient to cover this.
  - months with high seasonality
- Claims volatility risk
  - formula is based on scheme size
- Pricing risk
  - operating result of last 3 years is used
  - more weight for recent years, e.g. if schemes under-price then their solvency requirement will increase

Mr Stipp added that it was difficult for schemes to recover from an operating loss because if premiums are increased then younger and healthy leave. Schemes should price for an operating margin.

Liability risk – CMS proposal:

The CMS proposes a stochastic model with 3-year time horizon.

The model projects future cash flows of a scheme on a monthly basis to calculate the probability of ruin.

Under this model, assumptions are required for all variables on the income statement. The disadvantages of this are as follows:

- the model is costly, time consuming and complex;
- there is no IBNR or catastrophic component (also applicable to ITAP model);
- parameterization at an industry level is difficult; and, it double counts the assets risk.

In assessing the CMS liability risk model, Mr Stipp pointed out that an analysis of the CMS liability risk model, using DH administered schemes, revealed that contrary to an increasing scheme size resulting in a decreasing solvency requirement, the opposite was true.

Operational Risk – ITAP proposal:

- Bad debts
  - use prior year net impairment losses, trade and other receivables
- Expense risk
  - risk exists where a scheme winds down;
  - claims can still be submitted four months after treatment;
  - proposal to hold 2.5 months of expenses.

- Default by third parties
  - third parties not required to hold capital;
  - if third party defaults, scheme is liable to settle claims;
  - as the liability risk is calculated on the full contribution, there is already an implicit allowance for this risk;
  - proposal that no explicit allowance be made.

Operational Risk – CMS proposal:

Mr Stipp explained that the CMS proposes using compliance and complaints indicators and that an index for both compliance and complaints would be calculated for each scheme. He added that the index scores would be translated into the amount of capital required (as a % of premiums).

Mr Stipp suggested that:

- it is inappropriate to hold reserves for operational risk;
- that it is unclear how a compliance score could be calibrated to a probability of ruin;
- that a tick box approach may not capture risk;
- that it is subjective; and,
- that complaints may be unfounded or be in response to legitimate risk interventions.

He said that in essence, the more complaints received by CMS the higher the solvency requirement would be. However, he added that complaints could be for a number of reasons. For example, the cut in allied health benefits by DH would have resulted in increased solvency requirement of 10%. He suggested that the operational problems should rather be assessed by looking at the average time in which a scheme pays a claim and whether this suddenly changes.

He commented that the CMS proposal looks at routine two-yearly inspections, but issues raised as a result of the inspection does not necessarily mean that there needs to be higher solvency. He suggested rather that action be taken against the trustees in cases where issues were noted. He said that this method could be punitive and put extra solvency requirements on schemes and that the purpose of a solvency model should be to address the risk of schemes.

Asset risk – ITAP proposal

- Elements of asset risk:
  - unexpected loss in capital value
  - unexpected decreases in income

Mr Stipp explained that this model required that the greater the investment in equities, the greater the solvency which would be required. He added that asset risk capital should only apply to assets held to cover liabilities and that capital gains and losses should be taken into consideration.

- Method of quantifying asset risk:
  - assumes the lowest annual return by asset class in the last 50 years.
- Asset Risk is the % of additional capital required to withstand a worst case decrease in all asset classes simultaneously.
- Example values could be:
  - cash default risk assumed 0.03%
  - property lowest return of -10%
  - bonds -17.7%
  - equities -25.8%

  (values are only illustrative)

    - Asset classes may need to be divided further, e.g. government vs. corporate bonds.

Mr Stipp explained that this model required that the greater the investment in equities, the greater solvency would be required. He added that asset risk capital should only apply to assets held to cover liabilities and that capital gains and losses should be taken into consideration. Mr Stipp also suggested that assets above liabilities were deemed free assets which could be invested less conservatively to allow for greater returns.

Asset risk – CMS proposal:

CMS proposes that asset risk must protect against extreme market events.

Extreme market events are defined as the maximum loss (over a certain time period) for each asset class.

The asset risk is calculated as the weighted sum of the maximum loss for each asset class where the weights are the distribution of assets by class.

This assumes that asset classes are 100% correlated; that asset risk classes are too broad; and, that risk based requirements are unresponsive to market cycles. (The latter two points also apply to the ITAP model).

RBC Formula – ITAP proposal:

Mr Stipp outlined the ITAP calculation for the capital required per scheme based on their assets.

He added that ITAP had performed an analysis of schemes based on the ITAP calculation and concluded that very few schemes would be negatively impacted compared to their 2015 position.

He said that where schemes price for an operating deficit the formula will penalise a scheme and that the RBC would increase by more than the deficit.

In his concluding remarks on the ITAP model, Mr Stipp said that further work was required to refine the ITAP proposal. He added that the ITAP model was simple and would allow for a move to a RBC approach and that schemes would be able to easily calculate their

requirements using a spreadsheet. He reiterated that very few schemes would be negatively impacted and that accumulated funds at an industry level were unlikely to reduce as RBC requirements increase if a scheme prices for an operating loss.

He added that contribution increases could be lower as schemes would be able to price for lower but more appropriate solvency level. Schemes would be able to reduce their solvency requirements by managing their risks better.

Mr Stipp concluded by applauding the CMS on its initiative to review the current solvency framework and its acknowledgement that the process of determining adequate capital requirements is multi-faceted. He indicated his appreciation for the collaborative stance with which the CMS has proceeded in finding the best RBC framework for the industry.
