

# Steve Dixon Associates Update

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## Prudential Regulation

### *Solvency 2 starts*

There has been considerable developments in the world of Solvency 2 recently. For a basic introduction to Solvency 2, turn to the appendix attached.

#### The Framework Directive

The framework directive became EU law at the end of April 2009. The key items in the directive compared to the previous versions are:

- The equity risk module has been watered down slightly in response to concerns by the French government on the impact on long term insurances for pensions;
- The sections allowing for regulation across groups rather than at the company level has largely been removed to allow supervisors in differing EU countries some control over their domestic market;
- Non-directive status is only allowable if premiums are below 5 million Euros and technical provisions are below 25 million Euros. If either of these fail, then the insurer falls within the requirements of Solvency 2. Obviously, non-directive firms can choose to be in Solvency 2.

The directive places the date when the new regime goes live as 31st October 2012. Reporting after this date will be on Solvency 2

First set of consultations on level 2 rules.

The directive only gives a framework and outlines the principles that will be followed in Solvency 2. A large amount of the rules are in “Level 2” or “Level 3”. “Level 2” will be regulations issued by the EU whereas “Level 3” will be guidance issued by CEIOPS for national supervisors to follow.

The first set of consultation papers have been issued by CEIOPS on the advice that it will give the commission on level 2 rules. These are CP26 to CP37. There will also be more consultation papers issued in June 2009, more in October 2009 and a final batch in December 2009.

#### CP26 - technical provisions

This consultation paper outlines requirements for technical provisions. Basically, it restates the need for the arithmetic mean of discounted future cashflows as a best estimate technical provision that is then loaded for cost of capital risk margins. A forward looking emphasis must be used.

For general insurance, unexpired risk reserves need to value likely claims from the period of risk still to expire rather than just rely on unearned premiums. Outstanding claims needs a statistical basis although case estimates may be allowable if controlled properly and tested for IBNR and IBNER.

It states that any complex, path dependent risk should use a stochastic method but it also states that a stochastic method is the preferred approach for all technical provisions. The best estimate is then the mean of the

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technical provisions found from all the simulations generated. We believe that CEIOPS may have meant this to apply only on complex risks. However, the wording strictly implies that actuaries will have to justify any move away from stochastic reserves. We hope this is watered down in the final draft before going to the commission.

### CP27 - setting CoC risk margin and avoiding cross subsidy

This consultation paper states the split that should be employed for technical provisions between classes of business to allow for cross subsidies in the cost of capital risk margin.

General insurance is split by major category of risk (Health and Accident from Motor for example).

Life insurance is split in a two way matrix between unit linked, with profit, non-profit and reinsurance and then split between insurances with an emphasis on death benefits, on survival benefits (annuities for example), on disability and morbidity benefits and on savings with limited or no cover (pension plans for example).

The CP also states that plans that provide a mixture of benefits need to be unbundled between the categories.

We believe that this split in a matrix for life is clumsy and will generate odd results especially if the unbundling of death from survival benefits means that we have to assume the worst of the two stresses on mortality in the cost of capital calculations.

### CP28 - credit risk SCR

This paper deals with credit risk. Credit risk will include all deposits, non-tradeable investments and all reinsurance. The CP comes up with some very complex methods for the calculations at the likely loss from a default which may be over complex and, in our view, very optimistic. AA rated will arrive at something under 5% loss whereas the Icelandic

bank default caused account holders to lose 15% to 20% of their deposits.

### CP29 - own funds

This paper defines “own fund” or surplus assets and shareholder assets. 3 steps are required in putting assets into the tiered categories:

- Analysis of legal constraints on use of funds;
  - Allowance for a realistic view of what will really happen;
  - A prudent person view of likely action.
- Default risk and liquidity risk have to be allowed for.

### CP30 - future premiums in technical provisions

This deals with the allowance for future premiums in technical provisions. If the premiums are contractual, then they should be valued within the technical provisions as should the benefits generated by payment of those premiums. Equally, non-contractual premiums should only be valued if the premium generates a loss to the insurer (i.e. adds more to the liabilities than assets). This is roughly in line with IFRS.

Only existing policies can be allowed for.

### CP31 - risk mitigation and SCR

This deals with the allowance for risk mitigating techniques in the Solvency Capital Requirement. Examples might be the purchase of options for mitigating market risk. The CP states that these should only be allowed if the firm has sufficient knowledge to be able to use the instruments safely. The firm needs to understand what is going on.

The CP then states that the risk mitigation of the SCR can only be allowed for if:

- The economic effect of the instrument is more important than legal form and needs to be analysed;

- There is legal certainty and effectiveness;
- Liquidity exists;
- Credit risk has been allowed for;
- The mitigating instrument is direct, explicit and unconditional.

### CP32 - technical provisions and management actions

This CP deals with whether management actions can be allowed for in setting the technical provisions. The obvious example here is a reduction in bonus rates reducing technical provisions of participating insurance if market values collapse.

The CP states that you can only allow for management actions if they are:

- Objective with clear trigger points and algorithms set by the Board. These must be documented with a person responsible;
- Realistic and possible to do. You must check that policyholder literature allows you to do the action;
- Verifiable. There must be a plan and the action should be backed from previous actions taken by the Board.

### CP33 - Governance.

This is a large document and it is the one that boards rather than actuarial technicians need to focus on.

CEIOPS has to use the term of “the body in charge of the firm” as not all corporate governance systems in the EU have boards of directors. However, we would assume this to mean the Board. This body needs to make sure that the firm’s functions are properly staffed, properly controlled and have adequate resources to carry out all the functions required. There are 4 key functions established by Solvency 2: internal audit; risk management; actuarial function and compliance function. All must have direct reporting lines to the Board, all must be properly staffed and resourced.

Nearly all UK insurers will have some form of internal audit function with direct reports to the Board. The CP states that this can be carried out by an external firm (as currently in the UK) as long as the expertise is sufficient and the controls are in place. There has to be an internal audit strategy and plan in place approved by the Board. Again, it is very common for a plan to be agreed for internal audit each year.

Risk management function may be a new function to all but FTSE100 insurers. This function owns the internal model and ORSA and is responsible for all risks in the organisation including operational risks, investment risks, underwriting risks and any credit risks. Again, the role can be outsourced as long as it is embedded in the decision making of the process. There must be a risk management strategy signed off by the Board with a risk management plan.

The compliance function reports must be made independent of organisational control. Again, compliance needs to report direct to the Board. A tweak here will cope with this for most UK firms. Independence may be an issue for many small insurers on compliance.

All firms require an actuarial function. However, the actuarial function does not necessarily need to belong to any professional body as long as it has the skills necessary and can bring in all the professional knowledge and rules necessary to carry out the function. Again, the actuarial function can be outsourced. The AFH will be responsible for calculating the technical provisions and all the decisions on judgements and uncertainties around the technical provisions and SCR calculations. He will also need to be involved with underwriting (including pricing) and reinsurance. CEIOPS notes that there is a strong overlap with the risk manager and suggests that it would not be unusual for the risk manager to be the same person as the actuarial function holder.

There are three possibilities on the rules applying to how AFHs exercise their

judgement and carry out the sums. Firstly, that the rules are specified by CEIOPS. Secondly, that there are no rules but practice grows up. Finally, that CEIOPS creates a rule maker which will have relevant stakeholders present at a EU level. It is likely that the third route will be followed. CEIOPS is also seeking a view on whether they should specify all the areas that an AFH is involved in or leave it to the market.

Outsourcing is dealt with in the paper. This is similar to the UK requirements. Any outsourcing does not remove the Board's responsibility for the task and can only be done if the Board are sure the outsourcer has the ability and the capacity for the task, there are no conflicts of interest and there is a written agreement on the responsibilities including avoiding a breach of data protection. Personally, I believe we may need to enhance our agreements with clauses outlining responsibilities split between clients and ourselves more clearly

I believe that it would be appropriate for the risk manager role and the AFH to be combined in smaller insurers.

#### CP34 - transparency

This CP deals with transparency of the supervision process and the regulatory reporting. It suggests that rules of the supervisors, their decisions and the reports that firms make should be published on the web. It also states that CEIOPS would prefer all reports to it in English. Aggregate data should be provided by supervisor and then by CEIOPS on their web sites.

#### CP35 - assets and other liabilities

This CP deals with asset valuation and other liabilities. Basically, CEIOPS suggests following IFRS with mark to market then mark to model if there is no credible market. Regular valuations are necessary for non-homogenous assets (property for example). Some particular comments are:

- Goodwill and intangibles have nil value;

- No allowance for present value of in force as this is allowed for in the technical provisions;
- Plant and equipment at economic value
- Contingent liabilities only if "probable"
- Tax is only allowed as an asset if specifically linked to a Solvency 2 balance sheet item;
- Pensions have a question. CEIOPS sees two ways of valuing: as a contribution stream from the employer as in IFRS or as taking fully on balance sheet some method such as the projected unit credit method or other form of valuation.

#### CP36 - special purpose vehicles.

This CP deals with SPVs.

#### CP37 - Internal Models

This CP outlines the approval process for internal models for SCR. It states that a pre-application engagement period with major testing and checks should be used by all supervisors. It also states that standard formulae should be calculated for 2 years after the internal model is approved. The CP states that the approval process itself should take no more than 6 months and that the supervisor needs to differentiate between minor failings and major failings. The former should cause the supervisor and the firm to try to fix the problem, whereas the latter should cause the supervisor to reject the application. The reasons for rejection must be given. All rejected applications have to follow standard formulae for SCR.

An interesting part of the CP deals with partial internal models whereby the supervisor is allowed to require the partial model to be extended to cover other risks as a decision. This might put firms off applying for partial internal models as they may not want some risks to fall into an internal model.

Overall, the internal model process looks cumbersome and long winded. Large firms and those with long established ICAs and

internal actuarial teams may find it worthwhile. However, we note that there was not much reduction in SCRs in QIS4 from internal models compared with the standard formula. We would hope that commercially available modelling tools will develop which can be bolted together to become an internal model. Obviously, the firm would still need to understand the workings of the model.

### FSA Dear CEO letter

Firms have to complete a response to the Dear CEO letter. This will require firms to identify a project plan and appoint someone to head their project if this is the first letter that the firm has received from FSA. An open approach is probably justified in the contents of the response as the letter is just a requirement to start the process off. We believe that it is now time for firms to start project teams on Solvency 2 if they have not started yet. We would suggest that technical provisions and governance should be the first things boards should focus on.

### QIS5

It is extremely likely that there will be a further quantitative impact study next year probably between August and October. There is talk about participation being compulsory and that FSA will expect people to make best endeavours to comply fully with the Solvency 2 rules rather than give them anything they think fits the bill.

### The next set of Cps

These are rumoured to include more on technical provisions including the risk free rate of return being defined, the calculation of cost of capital risk margins, the cashflows that must be valued and data quality and simplifications.

### Overall

Lots of activity.

We will be developing our Solvency 2 compliant technical provisions for life assurance valuation system over the next 6 months. This will be a cashflow based system derived from the model office software we have created for some of our clients whereby individual policy cashflows are projected in months. We have already tested this for a small client and have had promising results. FSA have also stated that they believe the method has a lot of promise. We do not believe asset shares are adequate for regular premium conventional insurances as they do not capture the cross subsidies in uniform bonus rates and scales.

We will be talking to all clients shortly on how they are affected and what we should be doing.

We believe that all firms affected now have to plan a Solvency 2 project for the last 6 months of this year. We would suggest that QIS5 should only be undertaken once the Board are pretty confident that the results will be appropriate.

S Dixon  
June 2009

## *Appendix: Solvency 2 -*

### *short summary*

Solvency 2 is the new prudential regulation standard for insurers within the European Union. The new directive (which replaces all previous insurance directives) lays down a new risk based standard that will apply to all insurers who wish to trade within the single market within the EU. The aim is to arrive at a standard to make sure that all policyholders are protected irrespective of the country out of which the insurer is operating (and who is regulating them).

#### 1. Is that likely to happen?

Yes. The framework Directive has been passed by the EU Parliament and has been agreed with the Council of Ministers. It is now EU law from 31/10/2012.

#### 2. Who will be affected?

All insurers other than those who will choose to be "non-directive" and (at the same time) would be under a certain size limit. The limit is 5 million Euros in premium income and 25 million Euros in technical provisions. Non-directive insurers are not required to have a particular corporate structure and can include proprietary insurance companies. There is talk about restricting non-directive status to avoid proprietary firms qualifying.

#### 3. When will it come in?

October 2012 is the planned date.

#### 4. What are the main elements of Solvency 2?

The total prudential reporting structure is laid out in the Directive: how to value assets; how to value the technical provisions; how to value current liabilities; what counts as regulatory capital; how to calculate the required level of assets above the technical provisions; how firms should be supervised; cross border co-operation of supervisors; actions that supervisors can take against firms; how firms will report their prudential results to the public and to the supervisor; how often will reporting take place.

The key elements for friendly societies are (in order):

1. how to value the technical provisions;
2. how to calculate the new solvency margin;
3. how to report to supervisors and the public.

#### 4.1 Technical provisions - main changes

The technical provisions are changed enormously from current reporting for most friendly societies. Current technical provisions are based on a prudent view of guaranteed benefits with margins on each of the assumptions and no allowance for future bonuses. Investment returns (within the UK) are based on a very prudent view of achievable returns based on actual investments held.

Technical provisions under Solvency 2 are best estimates of the discounted value of the likely payouts (allowing for future discretionary bonuses) with a margin added that reflects the capital required for the risk. The process will require new actuarial software as the calculations need to allow for discounting at different "risk free" rates for each duration; for risk margins that need to be built by product group; for all expected future bonuses and for option costs and guarantees properly. This is fundamentally different from current statutory reserves.

#### 4.2 SCR versus ICA

The Solvency Capital Requirement can be calculated in two ways: standard formula and internal model.

The internal model approach involves the firm developing their own model of the risks they run and could lead to more or less capital than the standard formula. The model will need to be fully documented, in use for some time in the firm as one of the main ways the firm manages risk and will need to be checked in detail by the FSA. The FSA have given a DP which outlines the work required and it implies many years of effort to get to the required standard. They state that even the most sophisticated ICA model has a step change required to get to the standard before they are prepared to sign it off as being an acceptable internal model for Solvency 2. It is quite likely that the internal model will also need to be part of the external audit. The method used for auditing may require the auditors to develop their own models to check the results of the firm's model.

Standard formula is easier to perform (and check) and basically allows for stated stresses and then shows the impact of the stress before and after management actions (reductions in bonuses, change in investment strategy).

FSA have stated that firms will need to have some form of justification for using the standard formula.

#### 4.3 Reporting

There will be new forms. Enough said.

#### 5. I have heard of something called ORSA - what is it?

The Own Risk and Solvency Assessment is a new requirement and it is similar to a mixture between the ICA and the old Financial Condition Report model office projections. You are required to project your

business plan some years into the future and then stress the results. You are also required to give your own assessment on the capital required which will be a mix of an ICA and this stressing of your business plan.

You do not need a complex internal model for ORSA. The Directive implies that bits of the formulaic SCR might be suitable for part of the work if the risk is adequately shown by the standard formula.

#### 6. I have heard that governance is changing yet again...

Yes. Part of the directive deals with governance issues. However, it will not be a fundamental change for UK Friendly Societies. Firms will need:

- a risk management function. This will need direction by the Board;
- an internal audit function;
- an actuarial function.

These functions can be outsourced as long as the firm exercises proper control over the quality of the work done. They can even be doubled up so that the risk manager can be the internal auditor. The firm needs to make sure the people doing these functions have the relevant skills although professional qualifications will not be required.

#### 7. Any change for non-directives.

The short answer is "no-one knows". FSA have not considered whether they will change their prudential rulebook for those insurers who will be non-directive. They have stated that any change will be consulted upon and will have a proper timetable for implementation.

If no change takes place, the jump from non-directive to directive status will be a major change.

#### Further information

Please do not hesitate to ask us for more information on this subject.

The AFS has established a working party to consider the impact on small to medium sized friendly societies which involves nearly all of the actuarial consultants in this market as well as a representative of societies. The aim is to make the transition practicable and, if possible, without an increase in cost to the societies. The FSA is an observer on the body. I am on the working party as well as being a member of the FSA Insurance Steering Group on Solvency 2 and the actuarial profession's working party on Solvency 2 for Life Assurance.

S. Dixon  
24th April 2009