SOLVENCY II - LIFE INSURANCE

1 Overview

1.1 Background and scope

The key objectives of Solvency II were to increase the level of harmonisation of solvency regulation across Europe, to protect policyholders, to introduce Europe-wide capital requirements that are more sensitive (than the previous minimum Solvency I requirements) to the levels of risk being undertaken, and to provide appropriate incentives for good risk management.

EIOPA (the European Insurance and Occupational Pensions Authority, one of the EU's main financial supervisory bodies and which developed from the body previously known as CEIOPS) provided technical advice and support to the European Commission for the development of the delegated acts (which provide more detailed implementing guidance than the over-arching Directive), and was responsible for producing some of the technical standards and additional guidance.

All information included in this document is current as at the time of writing (April 2016), but it should be borne in mind that the Solvency II regulations continue to evolve. Readers are encouraged to be aware of and monitor the ongoing developments.

The Solvency II Directive applies to all EU insurance and reinsurance companies with gross premium income exceeding €5 million or gross technical provisions in excess of €25 million. It became operative from 1 January 2016.

Transitional arrangements are available for some aspects (e.g. technical provisions, risk-free interest rates, continued use of ICA), for a defined period (up to 16 years). The intention is to avoid unnecessary disruption of markets and availability of insurance products. However, UK firms have had to make formal applications to the PRA to be permitted to use the transitional arrangements.

1.2 Structure

The Solvency II framework comprises three "pillars".

Pillar 1 sets out the minimum capital requirements that firms are required to meet. It specifies valuation methodologies for assets and liabilities ("technical provisions"), based on market consistent principles. Under Pillar 1 there are two distinct capital requirements: the Solvency Capital Requirement (SCR) and the Minimum Capital Requirement (MCR). The SCR can be calculated using a prescribed standard formula approach, or by using a company-specific internal model, which has to be approved by the regulator. The SCR and MCR both represent capital requirements that must be held in addition to the technical provisions. Supervisors may decide that a firm should hold additional capital (as a capital add-on) against risks that are either not covered or are inadequately modelled for the SCR.

Pillar 2 includes the supervisory review process, systems of governance and risk management. Also under Pillar 2, each insurance company is required to carry out an Own Risk and Solvency Assessment (ORSA). The ORSA requires each insurer to identify the risks to which it is exposed, including those not covered under Pillar 1, to identify the risk management processes and controls in place, and to quantify its ongoing ability to continue to meet the MCR and SCR.

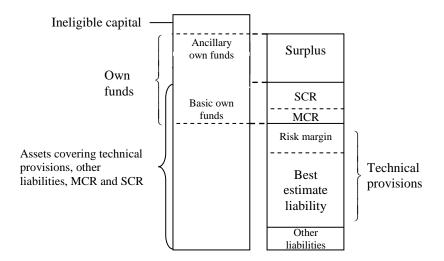
Pillar 3 is the disclosure and supervisory reporting regime, under which defined reports to regulators and the public are required to be made.

This combination of minimum capital standards, qualitative risk management requirements, a well-defined and rigorous review process of companies' solvency by supervisors and prescribed disclosures to supervisors, policyholders and investors has been designed to deliver a more modern and secure prudential regulatory system.

It should be noted that the Solvency II Pillars differ in definition from those under the Solvency I UK regulatory regime, so care may need to be exercised when referring to them. For example, Solvency II Pillar 1 shares many characteristics with the previous UK Pillar 2 regime.

The three Pillars are considered in more detail in the following sections.

2 Pillar 1



2.1 Valuation of assets

Assets are required to be valued at market value, based on readily available market prices in orderly transactions that are sourced independently (i.e. quoted market prices in active markets).

If such prices are not available then mark-to-model techniques can be used — provided these are consistent with the overall market consistent (or "fair value" or "economic

value") approach, i.e. the amount at which the assets could be exchanged between knowledgeable willing parties in an arm's length transaction.

This was a significant change for much of Europe, where book values (i.e. original cost, possibly with depreciation) were often still used under Solvency I.

For non-linked assets, Solvency II replaces previous rules on admissibility limits (i.e. the extent to which certain assets could be taken into account in the balance sheet) and on counterparty or asset exposure limits with a principles based test, known as the "prudent person principle". This principle has been developed from a legal concept, which requires advisers only to make investment decisions for their clients that a "prudent person" would make. It requires insurance companies to develop their own set of key risk indicators for the purposes of making investment decisions, rather than depending solely on risk assessments performed by third parties, including asset managers and credit rating agencies. Companies need to assess their ability to manage any non-standard asset classes before investing in them, and must have strong monitoring and control procedures in place in respect of any investments that are not traded on a regulated market. [For unit-linked assets, the FCA's permitted links rules remain in the UK.]

Recoveries expected from reinsurance are shown as an asset on the balance sheet, rather than as a reduction in gross liabilities. Such recoveries must be adjusted to allow for the best estimate of expected losses due to the default of the reinsurer. This is calculated as the present value of the expected losses in each future year, and is typically small as the probability of reinsurer default is normally considered to be low (depending, of course, on the credit rating and security of the reinsurer).

2.2 Valuation of technical provisions

Also based on a market consistent approach, technical provisions should represent the amount that the insurance company would have to pay in order to transfer its obligations immediately to another insurance company.

The technical provisions consist of a best estimate liability and a risk margin. The calculation should be segmented by homogeneous product type.

2.2.1 Best estimate liability

The best estimate liability (BEL) is the present value of expected future cashflows, discounted using a "risk-free" yield curve (i.e. term dependent rates).

All assumptions should be best estimate, with no prudential margins. The projections should allow for all expected decrements and policyholder actions, including lapses. Insurance companies must take into account all relevant available data, both internal and external, when arriving at assumptions that best reflect the characteristics of the underlying insurance portfolio.

Future premiums can be taken into account up to the "contract boundary", which is broadly defined as the point at which a company can unilaterally terminate the contract, refuse to accept a premium or change the premiums or benefits in such a way that they

fully reflect the risks. For life insurance business this normally means the maturity or expiry date of the contract, or in some cases an earlier date at which premiums or benefits are reviewable so that they fully reflect the risks.

Allowance for future expenses needs to take into account both overheads and directly attributable expenses, and future expense inflation. No closure reserve is required.

For some liabilities, including financial guarantees and options, a market consistent simulation or stochastic analysis is likely to be the most appropriate calculation approach, although a deterministic "closed form" solution could be acceptable depending on the risks involved and the materiality.

The cashflow projections should ideally be performed on a policy by policy basis. However approximations are permitted and grouped model points can be used provided certain conditions are met, including validation of accuracy.

For with profits business, discretionary benefits need to be allowed for in the technical provisions. When calculating the best estimate liabilities for business that incorporates a discretionary element, the BEL must be calculated separately for the guaranteed and future discretionary benefits. For example, for a traditional with profits contract the liabilities relating to guaranteed benefits, including bonuses already declared in previous years, should be calculated separately from the liabilities relating to future (expected but currently non-guaranteed) bonus declarations. A stochastic calculation may be suitable for the latter.

The calculations need to reflect realistic management actions (e.g. dynamic reversionary bonus rates, equity backing ratios and charges that vary with economic conditions, providing these are consistent with the PPFM) and policyholder behaviour (e.g. levels of withdrawals that vary according to the relative attractiveness of guarantees under different economic conditions).

The future discretionary benefits should relate to normal expected bonus distributions only and should not include the distribution of the estate unless a formal distribution plan has been approved by the PRA.

The BEL for with profits business should not include the value of shareholder transfers in respect of future bonus declarations. These are not included as a liability, but should be valued separately (to the extent that such transfers relate to future discretionary benefits recognised in the BEL).

For unit-linked business, the unit and non-unit components must be unbundled for the purposes of determining the technical provisions.

It is possible for the BEL to be negative (there is no "floor" of zero) and negative non-unit reserves can be held.

2.2.1.1 Risk-free discount rates

The risk-free discount rates are published by EIOPA on a monthly basis.

They are based on a stated methodology, with the intention that they can be replicated by the insurance companies and any other interested parties.

Risk-free yield curves are published for each of the key currencies within the EU insurance market. This ensures consistency between insurance companies across the EU, and also allows for the different interest rate environments across the different economies.

The rates are based on swap rates where there is a sufficiently deep and liquid swap market, or government bond rates otherwise. These rates are then adjusted (by EIOPA) to reflect the risk of default of the counterparty (i.e. credit risk adjustment). For longer maturities for which data are not available, the yield curve is extrapolated to a defined long term equilibrium rate.

For the UK, the rates are based on LIBOR swap rates with a credit risk adjustment.

2.2.1.2 Matching adjustment

Where insurers have long-term predictable liabilities, and can hold matching assets to maturity, they are not exposed to the risk of changing spreads on these assets (they are not exposed to the liquidity component of spread risk, although they are still exposed to default risk).

In such cases, insurers are allowed to adjust the risk-free discount rate in line with the spread movements of their assets. The addition of this "matching adjustment" must be approved by the PRA and there are strict requirements in relation to the eligibility of the assets and liabilities. The matching adjustment is derived by taking the spread on the portfolio of matching assets and deducting the "fundamental spread", an allowance for the credit risks retained by the insurer. EIOPA publishes the fundamental spreads that insurers must use.

2.2.1.3 Volatility adjustment

Where insurers have liabilities that are not eligible for use of the "matching adjustment", they can alternatively add a "volatility adjustment" to the risk-free discount rate. The purpose of the volatility adjustment is to reduce the risk of forced sales of assets in the event of extreme bond spread movements.

The volatility adjustment is based on the spreads on a representative portfolio of assets for each relevant currency (or for each national insurance market, where the assets held by insurers in that market are under particular stress). Risk-free discount curves including the addition of a volatility adjustment are also published by EIOPA for firms to use.

Use of the volatility adjustment is subject to certain risk management requirements, such as a liquidity plan and sensitivity analysis. In some EU member states, including the UK, its use is subject to prior supervisory approval.

2.2.2 The risk margin

The risk margin is intended to increase the technical provisions to the amount that would have to be paid to another insurance company in order for them to take on the best estimate liability. It therefore represents the theoretical compensation for the risk of future experience being worse than the best estimate assumptions, and for the cost of holding regulatory capital against this.

The risk margin is determined using the "cost of capital" method, i.e. based on the cost of holding capital to support those risks that cannot be hedged. These include all insurance risk, reinsurance credit risk, operational risk and "residual market risk".

The risk margin calculation involves first projecting forward the future capital that the company is required to hold at the end of each projection period (e.g. year) during the runoff of the existing business. For Solvency II, the projected capital requirement is a subset of the SCR (see below), consisting of those risks that cannot be hedged in financial markets.

These projected capital amounts are then multiplied by a cost of capital rate. This rate can be considered to represent the cost of raising incremental capital in excess of the risk-free rate, or alternatively it represents the frictional cost to the company of locking in this capital to earn a risk-free rate rather than being able to invest it freely for higher reward. For Solvency II, it is a fixed rate of 6% per annum.

The product of the cost of capital rate and the capital requirement at each future projection point is then discounted, using risk-free discount rates, to give the overall risk margin.

Since the projection of the SCR is potentially complex, various simplified approaches can be used. For example, this could involve selecting a driver (e.g. reserves or sum at risk) which has an approximately linear relationship with the required capital or its components. The initial capital requirement can be expressed as a percentage of that driver, and the projected capital is then approximated as the same percentage of the projected values of the driver. In practice, more sophisticated methods using a combination of drivers and correlations may have to be used.

Although the risk margin must be disclosed separately for each line of business, it can be reduced to take into account diversification between lines up to legal entity level. The allocation of diversification benefit can be approximated by apportioning the total diversified risk margin across lines of business in proportion to the SCR calculated on a standalone basis for each line, or by other approximate methods if appropriate given the materiality of the results.

2.3 Capital requirements

2.3.1 Solvency Capital Requirement (SCR)

2.3.1.1 **Overview**

The SCR is a Value at Risk measure based on a 99.5% confidence interval of the variation over one year of the amount of "basic own funds" (broadly assets minus technical provisions; this concept is covered in Section 2.4 below).

There is a prescribed list of risk groups that the SCR has to cover:

- non-life underwriting risk
- life underwriting risk
- health underwriting risk
- market risk
- counterparty default risk
- operational risk

The SCR can be calculated using standard prescribed stress tests or factors, which are then aggregated using prescribed correlation matrices. This approach is known as the standard formula.

The SCR can alternatively be calculated using an internal model, which must be approved by the insurance company's supervisory authority and which must meet a number of standards including the "use test". This effectively requires the company to demonstrate that the internal model is widely used within the company and plays an important role in its decision-making and governance processes.

Firms choosing to use the standard formula are expected to be able to justify that this is appropriate.

The two approaches are described in more detail below.

A combination of internal model and standard formula approaches can also be adopted; this is referred to as a partial internal model.

Simplifications can be applied, provided they are proportionate to the nature, scale and complexity of the risks.

For some parts of the standard formula, insurance companies can apply to use "undertaking specific parameters" instead of the prescribed parameters.

Additional constraints apply to the calculation of the SCR if there are ring-fenced funds with limitations on capital fungibility (i.e. restrictions on the extent to which capital can readily be transferred between funds).

The benefits of risk mitigation techniques can be recognised in the SCR, provided any basis risk (i.e. mismatch between the risk and its mitigation technique) is immaterial or can be reflected in the SCR. All residual risks (e.g. counterparty risk arising from a risk transfer arrangement) should also be recognised. Dynamic hedging is not permitted to be recognised under the standard formula approach, but may be allowed in the internal model.

In the UK, the PRA has the power to require a capital "add-on" to be held, in excess of the SCR calculated by the insurance company. For example, where some aspect of the company's risk profile differs from the assumptions underlying the standard formula, and the risk is not being internally modelled, a capital add-on may be required to reflect the risk appropriately.

2.3.1.2 Standard formula

The diagram below illustrates the structure of the SCR calculation under the standard formula.

The Basic SCR is calculated by considering different modules of risks: market (equity, property, interest rate, credit spread, currency and concentration), counterparty default, insurance (separately for life, health and non-life business) and intangible assets.

For life insurance business, the insurance risk sub-module comprises: mortality, longevity, disability/morbidity, lapse, expenses, revision and catastrophe (e.g. pandemic) risk.

Revision risk refers to the risk of adverse variation of an annuity's amount as a result of unanticipated revision of the claims process, and is intended only to cover genuinely reviewable annuities, not those that are index-linked.

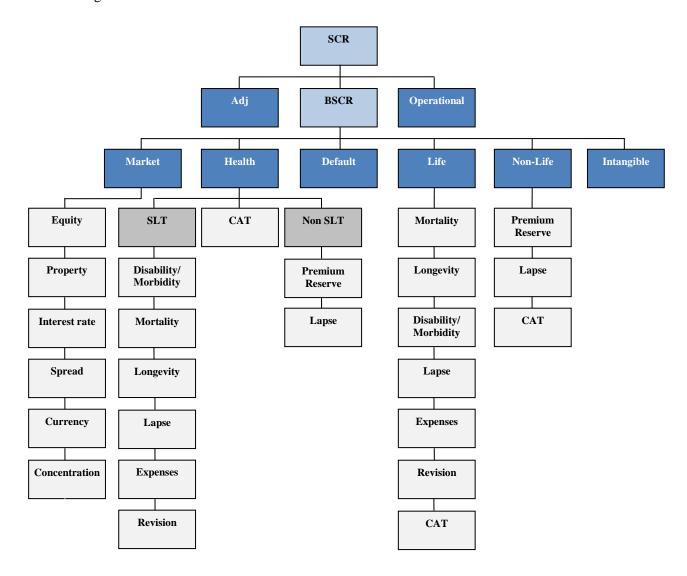
Critical illness and income protection business is classified as SLT ("Similar to Life Techniques") health insurance business, but further knowledge of the health insurance risk sub-module is not required for SA2.

The SCR is first calculated for each module, as listed above. For the market and insurance risk modules, each individual stress is performed separately according to detailed rules. The calibration and application of each stress is specified within the standard formula, e.g. -25% stress to property values, immediate and permanent 15% increase in mortality rates.

The SCR for each individual risk is then determined as the difference between the net asset value (for practical purposes this can be taken as assets less best estimate liabilities) in the unstressed balance sheet and the net asset value in the stressed balance sheet. These individual risk capital amounts are then combined across the risks within the module, using a specified correlation matrix and matrix multiplication.

For the counterparty risk module the calculation approach is similar, but the insurance company must first differentiate between type 1 (may not be diversified and the counterparty is likely to be rated) and type 2 (usually diversified and the counterparty is unlikely to be rated) exposures. Different detailed approaches are specified for the

determination of the SCR for each type of exposure, which are then combined using a given formula.



Having obtained the SCR for each module, a further specified correlation matrix is used to combine them to give the Basic SCR (BSCR). Aggregation is therefore performed at different levels.

To obtain the overall SCR, two adjustments are made to the BSCR: an allowance for operational risk and an allowance for the loss absorbing capacity of technical provisions and deferred taxes.

The loss absorbing capacity of technical provisions could include the ability to reduce discretionary benefits under the stressed conditions. The loss absorbing capacity of deferred taxes could, for example, include a reduction in any base balance sheet deferred tax liability, as this would no longer be fully payable in a stressed scenario. In practice,

the BSCR is calculated both with and without allowance for the loss absorbing effects and the "adjustment" is determined as the difference.

The operational risk module is relatively simple, being based on percentages of earned premiums and technical provisions. The resultant operational capital amount is added to the BSCR, with no recognition of any partial correlation or diversification effects with other risks.

2.3.1.3 Internal model

Provided that it has been approved by the insurance company's regulatory body, an internal model can be used as a full or partial alternative to the detailed standard formula approach.

For example, this might be appropriate if the risk profile of the business differs materially from that covered by the standard formula, and/or if the company already uses such a model for risk management or other decision-making purposes (e.g. pricing, investment strategy). Indeed, the supervisor can compel an insurance company to develop an internal model, if it feels that the standard formula is not appropriate to the risk profile of the company.

The overall capital requirements resulting from the use of an internal model will generally differ from the outcome of the standard formula calculation, and may be either higher or lower depending on how the firm's tailored risk profile compares against the assumptions underlying the standard formula.

However, the internal model must still generate an SCR based on the stated requirements, including coverage of the risk types as noted above and providing at least the equivalent protection to a 99.5% confidence level over one year.

The tests that the model must pass before it can gain approval are:

- The "use test" companies have to demonstrate that their internal model is widely used throughout all relevant areas of the business and that it plays a significant role in the internal governance, risk management and decision-making processes, as well as the economic and solvency capital assessments and capital allocation processes.
- Statistical quality standards a number of minimum quality standards must be met relating to assumptions and data, including probability distribution forecasting, the use of expert judgement, materiality considerations and methods of aggregation.
- Calibration standards these standards aim to assess whether the SCR derived from the internal model has a calibration equivalent to the Value at Risk at 99.5% confidence over one year.
- Profit and loss attribution this includes a requirement to demonstrate how the
 categorisation of risk chosen in the internal model will be used to explain the causes
 and sources of actual profits and losses.

- Validation standards the internal model must have been fully validated by the insurance company and must be subject to regular control cycle review, including testing results against emerging experience.
- Documentation standards the design and operational aspects of the internal model must be clearly and thoroughly documented.

The "use test" is seen as one of the most challenging aspects of gaining internal model approval. As well as embedding the model throughout the company and developing an effective risk culture, companies need to be able to evidence that this is the case.

The quality of data and assumptions can also be an issue. A key challenge is that historic data available to calibrate extreme events is limited. In practice, some industry consensus has emerged for some of the stresses e.g. credit spreads and property market movements. It is important for companies to allow for their own specific features, however, e.g. the extent to which their actual holdings are more or less volatile.

Similarly, setting dependency structures and correlation factors that apply under extreme conditions is challenging.

It should also be recognised that a combination of a certain subset of events happening at the same time, with an overall one-year probability level of 1 in 200, may produce a higher capital requirement than combining all of the individual capital requirements for separate 1 in 200 events using a correlation matrix. This is caused by "non-linearity" and "non-separability" of individual risks, the latter referring to the ways in which risk drivers interact with each other. Allowance needs to be made for these effects.

Furthermore, an internal model can be structured in any way that the company chooses, provided the above tests are met. It does not have to follow the structure of the standard formula, and can for example be based on stochastic simulations rather than stress tests plus correlation matrices, perhaps using copulas to model dependency structures.

Calibration of such models will also require care and expertise. In particular, the probability distribution used should properly reproduce the more extreme behaviour of the variable being modelled, taking care to ensure that it does not understate the frequency of more extreme outcomes.

A tight deadline was imposed of six months from the supervisory authority receiving an application for internal model approval to communication of the decision. Many regulators (e.g. in the UK) therefore chose to set up a more informal approach (called "pre-application"), encouraging companies to engage with them early on in their model development and refinement processes – although formal final approval could not be given until the Solvency II regulations came into force.

In the UK, the approval process is known as the Internal Model Application Process (IMAP). As part of IMAP, the PRA requires companies to submit a detailed "self-assessment template" which provides evidence of compliance with the relevant requirements, including the six tests mentioned above. It also requires information on the risks which are covered by (and any which are excluded from) the internal model.

Having already developed models for the similar ICA calculation, insurance companies within the UK, particularly larger ones with economies of scale, have been more likely to choose to apply to use the internal model option than insurers in some areas of continental Europe.

2.3.2 Minimum Capital Requirement (MCR)

The MCR is defined as a simple factor-based linear formula which is targeted at a Value at Risk measure over one year with 85% confidence.

For life insurance business, the formula is based on technical provisions and capital at risk on death or disability, multiplied by specified factors. These factors vary according to whether the business is with profits, unit-linked or conventional without profits.

The MCR has a floor of 25% and a cap of 45% of the SCR, and this may bite for a significant number of life insurance companies.

There is an absolute minimum capital requirement of €3.7m for life insurance companies (this floor is different for reinsurers and non-life insurers).

2.3.3 Supervisory intervention levels

The two capital requirement calculations outlined above define two rungs of a "ladder of supervisory intervention", under which increasingly severe (prescribed) supervisory authority actions will be taken as a company's eligible capital falls below the SCR (the first point of intervention) and approaches the MCR. The MCR is the ultimate point of supervisory intervention, below which the company would lose its authorisation.

2.4 Quality of capital resources

The phrase "own funds" refers to assets in excess of technical provisions, plus it also includes any subordinated liabilities.

Own funds are split into basic and ancillary own funds, which are then tiered based on specific criteria.

Basic own funds is broadly capital that already exists within the insurer. Ancillary own funds is capital that may be called upon in certain adverse circumstances, but which does not currently exist within the insurer (e.g. unpaid share capital).

The capital is tiered based on its loss absorbency and permanence. Tier 1 capital is of the highest quality and is the most loss absorbent and permanent form of capital (e.g. paid up ordinary share capital); Tier 3 is of the lowest quality (e.g. subordinated debt).

Restrictions are placed on the quality of capital that can be used to cover the MCR and SCR. For example, the SCR must be backed by at least 50% Tier 1 capital and less than 15% Tier 3, and the MCR must be backed by at least 80% Tier 1 capital and no Tier 3 capital.

For with profits funds, own funds are adjusted for consolidation purposes so that they comprise only the value of shareholder transfers that was described in Section 2.2.1.

2.5 Data quality

EIOPA (when CEIOPS) issued advice on "Standards for Data Quality" under the implementing measures. This highlighted the importance of having good quality data for the valuation of technical provisions.

This quality is deemed crucial because:

- The more complete and correct the data, the more consistent and accurate will be the final estimates.
- The application of a wider range of methodologies for calculating the best estimate is made possible, improving the chances of application of adequate and robust methods for each case.
- Validation of methods is more reliable and leads to more credible conclusions, once a reasonable level of quality of data is achieved.
- Effective comparisons over time and in relation to market data are possible, which leads, for instance, to a better knowledge of the businesses in which the undertaking operates and its performance.

It is also noted that the issue of data quality is relevant to other areas of the solvency assessment, such as the SCR using either the standard formula or internal models. A consistent approach to data quality issues needs to be taken across Pillar 1, without disregarding the different objectives.

3 Pillar 2

3.1 Governance requirements

Pillar 2 sets out requirements for the roles and responsibilities of key functions within the business, with the Board having overall responsibility for ongoing compliance with Solvency II.

All insurance companies are required to have a risk management function, actuarial function, compliance function and internal audit function. The organisational structure must have clear segregation of responsibilities, the minimum levels of which are defined within the Pillar 2 framework.

3.2 ORSA

In addition to calculating the MCR and SCR under Pillar 1, each insurance company is required to carry out an Own Risk and Solvency Assessment (ORSA).

The ORSA has been defined by EIOPA as: "The entirety of the processes and procedures employed to identify, assess, monitor, manage and report the short and long term risks an insurance undertaking faces or may face and to determine the own funds necessary to ensure that the undertaking's overall solvency needs are met at all times."

It requires each insurance company to identify *all* the risks to which it is subject and the related risk management processes and controls. This includes some of the more qualitative risks that have not necessarily been assessed under Pillar 1, such as reputational risk.

The company must also quantify its ability to continue to meet the MCR and SCR over the business planning horizon (usually three to five years), allowing for new business. This does not have to be at a prescribed confidence level, but at a level that the company feels is appropriate, for example relating to its own stated risk appetite and/or to achieving a target credit rating.

The ORSA is one of the elements considered by the supervisor when determining whether a further capital "add-on" is required.

Insurance companies have to produce evidence to the supervisor showing that the ORSA is used by senior management, including for example in making strategic decisions.

4 Pillar 3

4.1 Disclosure and reporting requirements

The disclosure requirements are intended to increase transparency and so are more extensive than the previous Solvency I reporting regime.

The results of the solvency calculation and details of the ORSA and risk management processes need to be disclosed privately to the supervisor in the Regular Supervisory Report (RSR), which includes both qualitative information and Quantitative Reporting Templates (QRT). The RSR, including QRT, must be submitted annually, although under certain conditions a summary (material changes) RSR is acceptable. A subset of the QRT (to support the MCR calculation) is required quarterly.

Except for certain items that can be demonstrated to be of a confidential nature, extracts from the QRT and some of the qualitative information from the RSR are also disclosed in a public Solvency and Financial Condition Report (SFCR), produced annually.

Local regulators are permitted to impose additional reporting requirements on insurance companies in the form of "national specific templates".

5 Other issues

5.1 Group reporting requirements

5.1.1 Groups

Solvency II aims to enable insurance groups to be supervised more efficiently through a "group supervisor" in the home country, co-operating with other relevant national supervisors. This ensures that group-wide risks are not overlooked and should enable groups to operate more effectively, whilst continuing to provide policyholder protection.

It also aims to address the double use of capital within an insurance group (for example where regulated entities make subordinated loans to each other) and double leverage (where a parent raises debt which is then used to fund an investment in a regulated subsidiary, improving the solo capital position of the regulated entity).

Each insurance group must cover its overall group SCR (which allows for diversification benefits across the group) as well as its group solvency floor (which is calculated as the sum of MCRs, or local equivalent, for each insurance or reinsurance entity within the group) and each insurance subsidiary needs to cover its own SCR and MCR.

Group supervision would normally be carried out at the top level company, which may be within the European Economic Area (EEA) or in a "third country", i.e. non-EEA. Solvency II requires that where there is a third country parent, EEA supervisors must assess whether the third country parent is subject to "equivalent" group supervision. Depending on this assessment there may be further requirements imposed, which could include establishing an EEA-based holding company.

5.1.2 Equivalence

If an aspect of a third country regulatory regime is considered to be broadly compliant with Solvency II, then that aspect of the regime can be said to be "equivalent". This "equivalence" can be granted in three different situations:

- the solo solvency regime in the third country is equivalent
- the group supervision regime in the third country is equivalent
- the solvency regime as applied to reinsurance activities is equivalent.

Equivalence can be "full" (granted for an indefinite period), "provisional" (granted for a limited period that will end on 31 December 2020 or on the date on which the prudential regime of the third country is deemed equivalent, whichever is earlier) or "temporary" (granted for a 10 year period with possible extension for further 10 year periods).

For example, Bermuda and Switzerland have been granted full equivalence. Japan, Australia, Brazil, Canada, Mexico and the USA have been granted temporary equivalence.

5.2 Impact on business culture and strategy

Engagement with Solvency II is important throughout the business, including right up to senior management and Board level. This is the case for all insurance companies and not just those opting to use an internal model – although as noted above, being able to demonstrate full integration of Solvency II into the business is a key part of the internal model approval process.

Solvency II is not just a reporting framework, but a risk management framework with implications for capital allocation, risk mitigation activities and performance management.

The regime may also have an impact on the optimal product mix for the company, and on product design.

It is also likely to impact the optimal asset mix for the company, since some asset classes have become relatively more attractive as a result of their lower capital requirements.

The availability, or otherwise, of risk diversification benefits may also affect corporate structures and generate merger and acquisition activity.

Management information has changed to align Solvency II metrics with the business and strategic decision-making process.

The impact on the market of the external disclosures also needs to be considered.

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