South African Reserve Bank
Prudential Authority

Prudential Standard FSI 4

Calculation of the SCR Using the Standardised Formula

Objectives and Key Requirements of this Prudential Standard

This Standard sets out the basis on which the Solvency Capital Requirement (SCR) is calculated for insurers using the standardised formula. The alternative approach of using an internal model approved by the Prudential Authority is set out in FSI 5 (Calculation of the SCR Using a Full or Partial Internal Model).

The SCR is one of two key solvency requirements (the Minimum Capital Requirement (MCR) being the other) designed to ensure the security of policyholder obligations and to provide triggers for regulatory intervention. The SCR is the primary requirement within the Financial Soundness Standards for Insurers.

The SCR is designed to ensure that a sufficient minimum level of eligible own funds is held against the key risks to which an insurer is exposed. The SCR captures risks covering existing business as well as new business expected to be written over the coming 12 months. It is calibrated to correspond to the value-at-risk of an insurer's basic own funds at a confidence level of 99.5% over a one-year period.

The standardised formula for calculating the SCR is designed for use by the majority of insurers in South Africa. The main features of the standardised formula are that it:

- *Is a forward-looking, risk-based measure that addresses the key risks faced by insurers;*
- *Measures risks primarily through the application of stress scenarios to an insurer's assets and liabilities;*
- *Is proportionate in that it allows for the use of simplified calculations under certain conditions; and*
- *Makes allowance for the risk-reducing impact of diversification benefits between risks, and also for risk mitigation instruments, changes to policyholder behaviour and future management actions.*

The standardised formula requires the calculation of capital requirements for each key risk category, namely market risk, underwriting risk and operational risk. The capital requirements for each risk category are aggregated using a correlation matrix prescribed in this Standard, which allows for diversification benefits between some risk categories in calculating the SCR.

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1. Application

1.1. This Standard applies to all insurers licensed under the Insurance Act, 2017 (the Act), other than microinsurers, Lloyd's and branches of foreign reinsurers.

1.2. Unless otherwise indicated, all references to "insurer" in this Standard can be read as a reference to life insurers, non-life insurers and reinsurers. Similarly, a reference to "insurance" obligations/policies in this Standard can be read as a reference to "reinsurance" obligations/policies, unless otherwise specified.

2. Roles and Responsibilities

2.1. Ultimate responsibility for the prudent management of the financial soundness of an insurer rests with the insurer's board of directors. The board of directors must ensure that the insurer maintains an appropriate level and quality of eligible own funds to meet the Solvency Capital Requirement (SCR) on a continuous basis, regardless of the approach taken to its computation. The board of directors must also ensure that the insurer has in place appropriate systems, procedures and controls to meet the principles and requirements of this Standard on an ongoing basis.

2.2. A particular area of focus for the board of directors should be where the standardised formula provides a choice of methodologies (including the possible use of simplifications). The board of directors should be aware of where these choices have been made, why the selected option has been chosen, and the impact of the decision. Insurers may change these choices over time, due to changes in modelling capability, portfolio composition, risk profile, etc. The board of directors is responsible for assessing and approving these changes and for ensuring that the Prudential Authority is kept informed about planned changes. Where approvals are required under the Standards, the board of directors is responsible for ensuring that these have been obtained before changes are made.

2.3. An insurer's head of actuarial function is responsible for expressing an opinion to the board of directors regarding the accuracy of the calculations to derive the SCR, including the appropriateness of the assumptions underlying the calculations.

2.4. An insurer's auditor, appointed under section 32 of the Act, must audit the financial soundness of an insurer in accordance with its legal and regulatory obligations. The auditor must report to the board of directors and Prudential Authority any matters identified during the performance of its responsibilities that may cause the insurer to be not financially sound.

2.5. The roles and responsibilities of the board of directors and the head of actuarial function are described in more detail in the Governance and Operational Standards for Insurers (GOI 3).

3. Commencement and Transition Provisions

3.1. This Standard commences on 1 July 2018.

Version Number	Commencement Date
1	1 July 2018

4. Key Elements of the Standardised Formula

4.1. The SCR establishes a critical level of financial soundness, below which regulatory intervention by the Prudential Authority will occur.

4.2. The SCR is forward-looking, risk-based and, in most cases, involves applying specified stress scenarios to an insurer's assets and liabilities to assess the impact on basic own funds.

4.3. The risk categories addressed by the standardised formula are:

a) Market risk;
b) Underwriting risk (life and non-life insurance); and
c) Operational risk.

4.4. The SCR also accounts for the risk of loss arising from movements in the value of an insurer's participations.[1] The method for determining the capital required for participation risk is dependent on the nature and activities of the participation, as set out in section 4.11 below.

4.5. The standardised formula for calculating the SCR takes a modular approach to calculating the capital required for each risk category, and the individual risk components within each category. This modular approach enables insurers to identify capital requirements for individual risk categories and components, as well as providing a basis for aggregating capital requirements to derive the overall SCR (see section 6 below for the aggregation process).

4.6. The SCR is calibrated to correspond to the value-at-risk of the basic own funds of an insurer at a confidence level of 99.5% over a one-year period. The parameters and assumptions used for the calculation of the SCR, including those applying to the calculation of capital requirements for individual risk categories and risk components, reflect this calibration objective.

4.7. The standardised formula approach to calculating the SCR for an insurer is standardised in the sense that the stress scenarios and required computations are set by the Prudential Authority. Standardisation does not imply simplicity although, in certain circumstances, the Prudential Authority permits the use of simplified computations. The principles that must be adhered to where insurers use simplifications to calculate the SCR are further detailed in section 5 below.[2]

Key risk categories and components

4.8. Market risk is the risk of loss arising from the impact of movements in market prices on the value of an insurer's assets and liabilities or of loss arising from the default of the insurer's counterparties. Market risk arises from a variety of sources. The

[1] As set out in FSI 1 (Framework for Financial Soundness of Insurers), the Prudential Authority reserves the right to prescribe a shareholding as an Asset Holding Intermediary in accordance with section 36 of the Act.

[2] The specific methods that insurers may apply when using a simplified computation are set out in the detailed Standards related to the calculation of the SCR using the standardised formula.

calculation of the market risk capital requirement under the standardised formula takes account of the following risk components:

a) Interest rate risk;
b) Equity risk;
c) Property risk;
d) Currency risk;
e) Spread and default risk;
f) Concentration risk; and
g) Illiquidity premium risk.

FSI 4.1 (Market Risk Capital Requirement) provides details of the calculation of the capital requirement for each of these risk components.

4.9. Underwriting risk is the risk of loss arising from insurance obligations, such as from poor claims experience, expense over-runs and policy lapses.

In the case of life insurers, calculation of the life underwriting risk capital requirement under the standardised formula takes account of the following risk components:

a) Mortality risk;
b) Longevity risk;
c) Disability-morbidity risk;
d) Lapse risk;
e) Expense risk;
f) Catastrophe risk; and
g) Retrenchment risk.

In the case of non-life insurers, calculation of the non-life underwriting risk capital requirement under the standardised formula takes account of the following risk components:

a) Premium and reserve risk;
b) Lapse risk; and
c) Catastrophe risk

The calculation of capital requirements for underwriting risk under the standardised formula is set out for life insurers in FSI 4.2 (Life Underwriting Risk Capital Requirement), and for non-life insurers in FSI 4.3 (Non-life Underwriting Risk Capital Requirement).

4.10. Operational risk is the risk of loss arising from inadequate or failed internal processes, people and systems, or from external events. Operational risk includes legal risk, but excludes risks arising from strategic decisions and reputational risk. The methodology for calculating the capital requirement related to operational risk under the standardised formula is set out in FSI 4.4 (Operational Risk Capital Requirement).

4.11. Participation risk is the risk arising from losses associated with investments by an insurer in participations. The SCR for participation risk must be calculated based on one of the following four approaches, where the approach applicable is dependent on the nature and activities of the participation's business. In particular:

a) Participations in Asset Holding Intermediaries (AHIs) must have their capital requirement assessed by applying a look-through approach, whereby the assets

and liabilities of the AHI are treated as if they were the assets and liabilities of the insurer;[3]

b) The value of all participations in financial and credit institutions (excluding insurance-related businesses), such as investments in banks and asset managers, in excess of 15% of tier 1 basic own funds must be deducted from own funds as set out in FSI 2.3 (Determination of Eligible Own Funds). Given the partial deduction of such investments from own funds, these participations must attract a capital charge that is commensurate with the value recognised for the purposes of calculating own funds;

c) Participations in insurance-related businesses[4] within the same sector as the insurer (e.g. a life insurer with a participation undertaking life insurance-related business) must be treated separately for the purposes of the SCR calculation, with no diversification benefits allowed for when aggregating the SCR for these participations with the SCR for other risk categories.[5] The capital requirement for such participations must be calculated using the methodology outlined in Attachment 3 of this Standard; and

d) All other participations (including insurance-related business not within the same sector as the insurer) must be treated the same as any other equity investment, with the capital requirement for such participations calculated using the methodology set out in section 6 of FSI 4.1 (Market Risk Capital Requirement).

Other risks

4.12. The SCR does not include a capital requirement for liquidity risk. It is possible for an insurer to experience a liquidity crisis without necessarily experiencing a solvency crisis. Thus, the regulatory treatment of liquidity risk focuses on measures by which an insurer should monitor and manage liquidity mismatches between assets and liabilities. FSI 6 (Liquidity Risk Assessment) sets out a liquidity measure that insurers must monitor for financial soundness and report to the Prudential Authority. An insurer's Own Risk and Solvency Assessment (ORSA) should set out further details of its management of liquidity risk.

4.13. The assessment of credit risk within the standardised formula is incorporated as a component of market risk, namely through the spread and default risk module in FSI 4.1 (Market Risk Capital Requirement). Assets such as reinsurance and derivative products used for risk mitigation purposes may also be subject to credit risk. Where such assets are exposed to credit risk (particularly counterparty default risk), the SCR also requires this risk to be appropriately accounted for in the calculation of the capital requirement for the relevant risk component (or sub-component) where risk mitigation is assumed to take place.[6]

[3] Attachment 1 of FSI 4.1 (Market Risk Capital Requirement) provides further details regarding the look-through approach for assessing capital requirements.

[4] For this purpose, underwriting managers, insurance brokers and similar businesses should be deemed to be insurance-related.

[5] The requirement to allow no diversification benefits for same-sector, insurance-related participations reflects the presumption that the risks of these participations are likely to be highly correlated with the overall risk of the insurer.

[6] Details of the approach to capturing counterparty default risk in relation to risk mitigation instruments are set out in Attachment 2 of this Standard.

5. Methodology for Calculating the SCR

5.1. For most risk categories and components, the calculation of the SCR is based on applying stress scenarios to the assets and liabilities of the insurer. In cases where the scenario approach does not apply due to the nature of the risk, a linear capital factor is applied instead.

5.2. Where the capital requirement for a risk component is calculated by applying a stress scenario, the capital requirement is measured by its impact on the level of basic own funds. The change in basic own funds (denoted as $\triangle BOF$ in the detailed Standards for calculating the SCR using the standardised formula) is defined to be positive where the stress scenario results in a loss of basic own funds. Where a scenario results in an increase in basic own funds (i.e. a negative $\triangle BOF$), the contribution of the scenario outcome to the overall SCR must be set to zero, unless otherwise explicitly stated.

5.3. When revaluing assets and liabilities for stress scenarios to calculate capital requirements for individual risk components, an insurer may take account of any likely future management actions as well as the effects of any eligible risk mitigation instruments (subject to satisfying certain conditions discussed further below). Where there is a causal link between policyholder behaviour and the scenario under consideration, insurers should also take into account possible changes to policyholder behaviour under the stress scenarios assumed in the calculation of the SCR. Additional requirements in relation to the incorporation of future management actions, risk mitigation instruments and potential changes to policyholder behaviours when calculating the SCR are set out further below.

5.4. For the purposes of the SCR standardised formula calculations, references to technical provisions within the calculations for the individual SCR modules should be interpreted as excluding the risk margin to avoid circularity in the calculation. An insurer may nevertheless elect to calculate its SCR using technical provisions including the risk margin, subject to the approval of the Prudential Authority. Computations including the risk margin will require an iterative approach to determine both the SCR and the risk margin. Insurers that adopt this approach will need to ensure that the SCR and risk margin stabilise.[7]

Treatment of new business in the Standardised Formula

5.5. Reflecting its forward-looking nature, the SCR covers the risk of existing business at a point in time as well as new business expected to be written over the coming 12 months.

5.6. In the standardised formula, new non-life insurance business is taken into account in the premium risk sub-component of the premium and reserve risk capital requirement. In particular, the volume measure for this risk component is based on the expected premiums earned on all new policies where the initial recognition date falls within the coming 12 months, and the capital requirement for premium and reserve risk therefore allows for unexpected losses stemming from this business. No allowance is made, however, for expected profits or losses arising from expected new business.

5.7. For life insurance business, the calculation of the capital required for underwriting risk in the standardised formula is based on scenarios. The scenarios consist of

[7] The calculation may be regarded as having stabilised when additional iterations do not produce a material change in the results.

instantaneous stresses that occur at the valuation date. The capital requirements are the immediate loss of basic own funds resulting from the stresses. The scenarios do not take into account any changes in assets and liabilities over the 12 months following the stresses. However, the standardised formula implicitly allows for the risk of new business by assuming that the capital released from existing business over the year is sufficient to cover the capital required by new business over the year. Therefore no explicit allowance for the risk of new business needs to be made in the calculation of the SCR for life insurance business. The expected profit or loss from the expected new business written during the coming 12 months is not included in the standardised formula for calculating the SCR.

Allowance for future management actions

5.8. Future management actions may be taken into account in calculating the capital requirement for individual risk components, subject to the following conditions:

a) To the extent that the stress scenario under consideration is regarded to be an instantaneous stress, no management actions may be assumed to be taken during the stress, unless explicitly stated otherwise;
b) However, an insurer may need to reassess the value of the technical provisions after the stress. Assumptions about future management actions may be taken into account at this stage. The approach taken for the recalculation of the best estimate to assess the impact of the stress should be consistent with the approach taken in the initial valuation of the best estimate, but based on the post-stress assumed environment; and
c) Any assumptions regarding future management actions for the assessment of the standardised formula SCR should be objective, realistic and verifiable. Insurers should ensure that the overall allowance for future management actions, after allowing for aggregation across risk components, does not exceed the maximum realistic impact of such actions.

5.9. Significant deviations from planned management actions that may have a material impact on the SCR must be reported to the Prudential Authority, together with an analysis containing the reasons for the deviation and its consequences.

Allowance for changes to policyholder behaviour

5.10. In calculating the SCR, insurers should consider changes to policyholder behaviour under each stress scenario. Examples of changes to policyholder behaviour include:

a) Decreases in policy lapse as investment guarantees become more valuable;
b) Increases in the exercise of guaranteed annuity options due to a permanent decrease in mortality rates; and
c) Increases in policyholders exercising their options to extend the term of existing guaranteed policies (rather than taking out new policies) where there are changes in market conditions that lead to an increase in mortality and term assurance rates.

5.11. While it is not always possible to model changes in policyholder behaviour accurately, insurers should consider the likely behaviour of policyholders for each stress and adjust assumptions about the exercise of policy options accordingly. An insurer should be able to justify its assumptions to the Prudential Authority. If the

Prudential Authority is not satisfied as to the reasonableness of the assumptions, it may require the application of alternative assumptions.[8]

Allowance for risk mitigation

5.12. Risk mitigation through risk transfer by insurers usually takes one of two main forms:

a) Reinsurance – whereby the insurer cedes part of its underwriting risk to another insurer or reinsurer (this may include risk transfer through the establishment of a Special Purpose Vehicle (SPV)); and
b) Financial risk mitigation – whereby the insurer purchases financial instruments (including derivatives) to transfer risk to participants in the financial markets.

5.13. Subject to meeting certain qualifying conditions, an insurer may include the effect of an eligible risk mitigation instrument when calculating capital requirements for individual risk categories or components, provided that the counterparty default risk related to the risk mitigation instrument is properly captured in the SCR computation.[9] Attachment 1 of this Standard sets out the qualifying conditions for a risk mitigation instrument to be eligible for inclusion in calculating the SCR. Attachment 2 details the approach to calculating the adjustment needed to capture the risk of impairment due to counterparty default in relation to eligible risk mitigation instruments.

5.14. The inclusion of risk mitigation instruments in calculating the SCR is limited to the computations for market risk and underwriting risk. No allowance is made for risk mitigation instruments in the standardised formula approach to measuring operational risk.

5.15. An insurer's head of actuarial function must ensure that the effect of each eligible risk mitigation instrument on the SCR is materially reflective of the risk mitigating reduction that would be expected at a 99.5% confidence level. Particular attention should be paid to eligible risk mitigation instruments that result in a material reduction in the SCR due to weaknesses in the assumptions underlying the SCR calculation. In such circumstances, the head of actuarial function should reduce the effect of the eligible risk mitigation instruments accordingly to reflect the capital reduction expected at a 99.5% confidence level in line with the intended purpose of the SCR calculation.

Insurer-specific parameters (non-life underwriting risk only)

5.16. While an aim of the standardised formula is to ensure a level of consistency in calibrating capital requirements across the industry, the Prudential Authority recognises that risk measures that reflect the specific risks of the individual insurer are likely to be more accurate and relevant in some areas. Therefore, subject to approval by the Prudential Authority, insurers may substitute insurer-specific parameters for certain parameters used in the calculation of the non-life underwriting risk capital requirement. These parameters are specified in FSI 4.3 (Non-life Underwriting Risk Capital Requirement).

[8] The Prudential Authority reserves the right to prescribe alternative assumptions used in the calculation of the SCR in accordance with sections 36 and 37 of the Act.

[9] The inclusion of eligible risk mitigation instruments in calculating the SCR applies to insurers that use the standardised formula as well as the internal model approach to calculate the SCR.

Ring-fenced funds

5.17. Some insurance products result in ring-fenced fund structures that give one class of policyholder's greater rights to assets within a particular fund. Ring-fenced funds may arise in respect of both life and non-life business arrangements.

5.18. Adjustments to both eligible own funds and the SCR related to ring-fenced funds are required where there are restricted eligible own funds that have a reduced capacity to fully absorb losses on a going concern basis due to their lack of transferability within the insurer. This lack of transferability may arise because the restricted eligible own funds can only be used to cover losses:

a) On a defined portion of the insurer's insurance policies;
b) In respect of particular policyholders or beneficiaries; or
c) In relation to particular risks.

5.19. While the ring-fenced assets and liabilities should form an identifiable unit (as though the ring-fenced fund were a separate insurer), it is not necessary that these items are managed together as a separate unit or form a separate sub-fund for a ring-fenced fund to arise.

5.20. Ring-fenced fund arrangements arise most commonly in relation to the following business arrangements:

a) Cell structures – where the assets of the general account (i.e. the promoter business) may not be available to meet liabilities of individual cells, other than where the assets attributable to the individual cell have been exhausted; and
b) Discretionary participation business – where there may be eligible own funds attributable to policyholders with policies with discretionary participation features that are not available to meet losses elsewhere in the business.[10]

5.21. For clarity, the following arrangements and products are generally outside the scope of ring-fenced funds:

a) Conventional linked policies where all of the benefits provided by the policy are directly linked to the value of units or based on a share index or other reference value;
b) Provisions and reserves set up in accounts or financial statements prepared under financial accounting standards; and
c) Conventional reinsurance business, to the extent that individual contracts do not give rise to restrictions on the assets of the insurer.

5.22. When assessing the solvency of an insurer with ring-fenced funds, two aspects need to be considered:

a) The first is the availability of eligible own funds within an insurer in the presence of ring-fenced funds and the extent to which eligible own funds held within the ring-fenced fund (restricted eligible own funds) can contribute towards the coverage of the total SCR of the insurer.
b) The second is the extent to which the ring-fenced funds reduce the benefits of diversification.

[10] For clarity, the existence of a discretionary participation feature is not a defining characteristic of ring-fenced funds. The general principle specified in section 5.18 must be considered when assessing whether a ring-fenced funding arrangement applies to business with discretionary participation features. Examples of restrictions may include policy conditions or conditions of a merger, transfer of business or demutualisation.

5.23. The calculation of the SCR for an insurer which has ring-fenced funds involves calculating a notional SCR for each ring-fenced fund and for the insurer as a whole (including the ring-fenced funds and the business written outside the ring-fenced arrangements). Further details of this methodology are set out in Attachment 4 to this Standard.

5.24. In calculating the solvency of an insurer with ring-fenced funds, eligible own funds must be calculated per ring-fenced fund as if each ring-fenced fund were a stand-alone entity. Further details on the calculation of eligible own funds for ring-fenced funds are also set out in Attachment 4.

Simplifications

5.25. The principle of proportionality requires that the resources devoted to complying with a particular regulatory requirement, such as calculating the SCR, should be consistent with the nature and complexity of the risks involved. Where risks are both complex to measure, and material in terms of the overall risk exposure of an insurer, it follows that the methodology involved in calculating the capital requirement for that risk will likely be correspondingly complex and demanding.

5.26. Under the standardised formula approach, insurers may apply simplifications where provided for in the Financial Soundness Standards for Insurers and where the simplified calculations can be justified as proportionate to the nature, scale and complexity of the risks. The Prudential Authority takes a principles-based approach to the use of simplifications. The Prudential Authority does not require approval before an insurer may apply a simplification, although it expects an insurer to justify the use of simplifications if asked to do so, and may disallow the use if not satisfied that the justification is valid or sufficiently well thought through.

5.27. The guidance provided in Guidance Note FSI GN 2.2 on how the principle of proportionality applies to the use of simplified methods in valuing technical provisions also applies broadly to the use of simplified methods in calculating the SCR.

6. Aggregating Individual Capital Requirements to Construct Total SCR

6.1. The calculation of an insurer's total SCR is carried out in several stages. First, capital requirements for individual risk components within the market risk and underwriting risk categories are aggregated in a way that allows insurers to take advantage of diversification benefits between the different risk components.[11] Allowance for diversification produces a lower overall SCR than the simple linear sum of the capital requirements.

6.2. Under the standardised formula, the capital requirement for each of the risk categories where individual risk components must be aggregated (i.e. market risk, life underwriting risk and non-life underwriting risk) must be calculated as:

$$SCR_{category} = \sqrt{\sum_{i,j} CorrComponent_{i,j} \times SCR_i \times SCR_j}$$

Where:

[11] There are no individual risk components for operational risk. Thus, the calculation of the operational risk capital requirement under the standardised formula does not require the aggregation of individual risk components.

$SCR_{category}$ = The capital requirement for the given risk category (i.e. the sum of the risks so calculated for all possible pairwise combinations of risk components *i* and *j* within the given risk category)

SCR_i , SCR_j = Capital requirement for the risk component *i* and *j*, where *i* and *j* are both components of the same risk category

$CorrComponent_{i,j}$ = The correlation between risk components *i* and *j* (as specified in correlation matrices within the detailed Standards for each risk category)

6.3. In the second stage, the capital requirements for the market and underwriting risk categories are aggregated to derive what is known as the Basic Solvency Capital Requirement (BSCR). The BSCR allows for diversification benefits between market and underwriting risk at the risk category level. The BSCR must be calculated as:

$$BSCR = \sqrt{\sum_{r,c} CorrBSCR_{r,c} \times SCR_r \times SCR_c}$$

Where:

$CorrBSCR_{r,c}$ = The entries of the correlation matrix $CorrBSCR$ below

SCR_i , SCR_j = Capital requirements for the risk categories *r* and *c* according to the rows and columns of the correlation matrix $CorrBSCR$

The correlation matrix $CorrBSCR$ is defined as:[12]

$CorrBSCR$	Market	Life Underwriting	Non-life Underwriting
Market	1		
Life Underwriting	0.25	1	
Non-life Underwriting	0.25	0	1

6.4. In the third stage, the total SCR for an insurer is calculated as the simple sum of the BSCR, the capital requirement for operational risk, the capital requirement for insurance-related participations in the same sector as the insurer, and an adjustment for the loss-absorbing capacity of deferred taxes. No diversification benefits must be recognised between these risks when aggregating to derive the total SCR. That is, the total SCR (SCR) must be calculated as:

[12] The setting of correlation coefficients for aggregating capital requirements under the standardised formula is intended to reflect potential dependencies in the tail of the distributions, as well as the stability of any correlation assumptions under stress conditions.

$$SCR = BSCR + SCR_{Op} + SCR_{Part} + AdjDT$$

Where:

SCR_{Op}	=	The capital requirement for operational risk
SCR_{Part}	=	The capital requirement for insurance-related participations in the same sector as the insurer (calculated in accordance with the methodology set out in Attachment 3 of this Standard)
$AdjDT$	=	An adjustment factor for the loss-absorbing capacity of deferred taxes (calculated in accordance with the methodology set out in Attachment 5 of this Standard)

6.5. The adjustment factor for the potential double-counting of the loss-absorbing capacity of technical provisions[13] is calculated as part of the calculation of the market risk capital requirement, and is detailed in FSI 4.1 (Market Risk Capital Requirement).

[13] The potential double-counting of the loss-absorbing capacity of technical provisions refers to the extent to which an insurer is able to pass on risks to policyholders by way of changes to policyholder benefits.

Attachment 1: Eligibility Conditions for Risk Mitigation Instruments

This Attachment sets out the conditions that an insurer must satisfy in order for a risk mitigation instrument to be classified as an eligible risk mitigation instrument and for it to be taken into account in calculating the SCR.[14]

A. General qualitative provisions

1. The contractual arrangements and transfers of risk for the risk mitigation instrument must be legally effective and enforceable. This must take into account:

    a) Whether the contractual arrangement is subject to any condition which could undermine the effective transfer of risk, the fulfilment of which is outside the direct control of the insurer; and
    b) Whether there are any connected transactions which could undermine the effective transfer of risk.

2. The contractual arrangements must ensure that the extent of the cover provided in the risk mitigation instrument is clearly defined and incontrovertible.

3. The risk mitigation instrument provides for the transfer of significant risk and there is a reasonable probability that the mitigated event will occur.[15] Insurers should be able to demonstrate this by meeting the following conditions:

    a) The assessment of risk transfer must be carried out in the context of the commercial substance of the risk mitigation instrument, and judged with reference to the range of outcomes that could reasonably be expected to occur in practice. A reassessment of risk transfer must be undertaken if the risk mitigation instrument is modified after the effective date and the modification significantly alters the expected future cash-flows of the risk mitigation instrument;
    b) A significant loss event is not required to occur during the course of the risk mitigation instrument as long as, at inception, there is a reasonable probability that a significant loss event may occur based on the terms and conditions of the contract; and
    c) Where it is not self-evident that a risk mitigation instrument provides for the transfer of significant risk, the extent of the risk transfer must be verified by appropriate tests to assess the streams of cash-flows for various scenarios. In such instances, documentation on the economic intent of the transaction and the risk transfer analysis must be maintained by the insurer and risk mitigation instrument issuer.

4. The risk mitigation instrument does not contain any unfair terms and conditions, or possesses characteristics that may jeopardise the ability of the insurer to meet its policyholder liabilities, such as giving the risk mitigation instrument issuer an option to unilaterally alter the terms and conditions of the risk mitigation instrument at any time or terminate the agreement due to an increased likelihood of the risk mitigation instrument issuer experiencing losses under the arrangement.

[14] The eligibility conditions will equally apply to inclusion in the valuation of technical provisions as set out in FSI 2.2 (Valuation of Technical Provisions).

[15] A risk mitigation instrument that does not entail significant risk transfer does not imply that it is invalid or illegal. Rather, it signifies that the insurer cannot obtain capital relief on the basis of such risk mitigation instrument. Where there is no risk transfer, the provision of such a risk mitigation instrument by an insurer constitutes “other business” for purposes of the Act and when applicable to a reinsurance arrangement, the reinsurer must secure the approval of the Prudential Authority for such business in accordance with section 5 of the Act.

5. The insurer has taken all appropriate steps to ensure the effectiveness of the risk mitigation instrument and to address the related risks, and is able to monitor the effectiveness of the instrument and the related risks on an ongoing basis.

6. The insurer has set out in the transaction documentation a direct claim on the counterparty in the event that the counterparty suffers a credit event.[16]

7. The contractual arrangement must not result in the creation of new risks, unless these are properly included in the SCR. Where basis risk[17] is material, the insurer must not take that risk mitigation instrument into account unless that basis risk is captured in the calculation of the SCR.

8. There is no double-counting of risk mitigation effects in the determination of eligible own funds or within the calculation of the SCR.

9. The standardised formula approach assumes in each risk module that the higher the stress applied, the higher the impact of the stress net of risk mitigation. Certain risk mitigation instruments may invalidate this assumption. In such circumstances, allowance should only be made for the risk mitigation instrument if the lesser stress that produces the highest net impact after risk mitigation is applied for the purpose of the SCR calculation for the respective risk module.

10. Only risk mitigation instruments that are in-force at the date of reference and for at least the next 12 months thereafter, and which meet the criteria set out in this Attachment, may be fully taken into account in calculating the SCR.

11. Where risk mitigation instruments are in-force at the date of reference and for a period of time less than 12 months thereafter then, provided the risk mitigation instrument meets the other requirements of this Attachment, it may be taken into account in calculating the SCR on a pro rata basis for the full term of the risk exposure or the period that the risk mitigation instrument is in-force, whichever is shorter.

12. Notwithstanding sections 10 and 11 above, where risk mitigation instruments are in-force at the date of reference and for a period less than 12 months thereafter, and the risk mitigation instrument meets the other requirements of this Attachment, then the full effect of the risk mitigation instrument may be taken into account in the calculation of the SCR and the valuation of the Technical Provisions provided that:

    a) The insurer intends to replace the risk mitigation instrument on expiry with a similar arrangement;
    b) There exists a written policy on the replacement of the risk mitigation instrument;
    c) The replacement of the risk mitigation instrument is not conditional on any future event which is outside of the control of the insurer. If the replacement of the risk mitigation instrument is conditional on a future event that is within the control of the insurer, then the conditions should be clearly documented in the written policy referred to in point b) above;
    d) The replacement of the risk mitigation instrument is realistic and consistent with the insurer's current business practice and business strategy. The insurer should be able to verify that the replacement assumption is realistic through a comparison with replacements taken previously by the insurer;

[16] A credit event includes a default, insolvency or bankruptcy of the counterparty.

[17] Basis risk is the risk that the exposure that is covered by the risk mitigation instrument does not correspond to the risk exposure of the insurer.

e) There is not a material risk that the risk mitigation instrument cannot be replaced due to a lack of liquidity in the market;
f) Any additional counterparty risk that arises from the replacement of the risk mitigation instrument is reflected in the SCR;
g) The SCR and recoverable reflect the risk that the cost of replacing the risk mitigation instrument increases during the coming 12 months; and
h) The replacement of the risk mitigation instrument is not contrary to the insurer's obligations towards their policyholders and beneficiaries or to legal provisions applicable to the insurer.

13. Shared risk mitigation techniques which provide simultaneous protection to various parties and where the activation of one of them means the loss of protection (totally or partially) for the remainder of the parties should only be treated as a risk mitigation instrument for the portion of protection that is guaranteed.

B. Requirements for insurance risk mitigation instruments to be incorporated in the SCR

In addition to the general qualitative provisions in Part A above, for an insurance risk mitigation instrument to be included in the calculation of the SCR for an insurer, it must satisfy the following conditions:

1. Where the risk mitigation instrument is a reinsurance contract, the counterparty must either be:

   a) An insurer or reinsurer regulated by the Prudential Authority; or
   b) An insurer or reinsurer not regulated by the Prudential Authority but where the Prudential Authority has given equivalence status to the jurisdiction where the insurer or reinsurer is regulated.

2. Where the counterparty to the contract is a SPV approved by the Prudential Authority, the insurance risk mitigation instrument may be included in the SCR calculation provided the funding level of the SPV is fully allowed for in the calculation of counterparty default risk related to the instrument (see Attachment 2 to this Standard).

3. Where risk is transferred in a securitisation using a legal entity other than a SPV, the risk mitigation instrument must only be taken into account in the SCR calculation where the insurer has demonstrated to the satisfaction of the Prudential Authority that requirements equivalent to those set out for an SPV are fully met by the legal entity to which the risk is transferred.

C. Requirements for financial risk mitigation instruments to be incorporated in the SCR

In addition to the general qualitative provisions in Part A above, for a financial risk mitigation instrument to be included in the calculation of the SCR for an insurer, the following requirements must also be met:

1. The financial risk mitigation instrument must meet the requirements of the insurer's risk management policies.

2. The financial risk mitigation instrument must be able to be valued reliably in accordance with the valuation principles and requirements set out in FSI 2 (Valuation of Assets, Liabilities and Eligible Own Funds) and FSI 2.1 (Valuation of Assets and Liabilities Other than Technical Provisions).

3. For financial risk mitigation instruments that are credit derivatives, the following additional requirements must also be met before the credit derivative may be included in the calculation of the SCR:

    a) The insurer has in place generally applied procedures for the mitigation of credit exposures by using credit derivatives and considers generally admitted criteria (such as requirements set out in other financial sectors).
    b) The credit events specified by the contracting parties cover at least:

        i. Failure to pay the amounts due under the terms of the underlying obligation that are in effect at the time of such failure (with a grace period that is closely in line with the grace period in the underlying obligation);
        ii. Bankruptcy, insolvency or inability of the obligor to pay its debts, or its failure or admission in writing of its inability generally to pay its debts as they fall due, and analogous events; and
        iii. Restructuring of the underlying obligation, involving forgiveness or postponement of principal, interest or fees that results in a credit loss event.

    c) Where there is a mismatch between the underlying obligation and the reference obligation under the credit derivative, or between the underlying obligation and the obligation used for the purposes of determining whether a credit event has occurred:

        i. The reference obligation or the obligation used for the purposes of determining whether a credit event has occurred, as the case may be, ranks *pari passu* with, or is junior to, the underlying obligation; and
        ii. The underlying obligation and the reference obligation or the obligation used for the purposes of determining whether a credit event has occurred, as the case may be, share the same obligor (i.e. the same legal entity) and there are legally enforceable cross-default or cross-acceleration clauses in place.

D. Requirements to be met by the counterparties to a risk mitigation instrument (financial or insurance) for the arrangement to be incorporated in the SCR

Notwithstanding the requirements set out in Parts B and C above, a risk mitigation instrument may be allowed for in the calculation of the SCR when the arrangement meets the general qualitative provisions in Part A above and the conditions set out below.

1. A risk mitigation instrument issuer has deposited collateral with the insurer or the insurer's nominee in South Africa equal to the insurance obligations assumed by the risk mitigation instrument issuer and on which the insurer has a prior charge and lien.

2. Where a collateral arrangement exists and the value of the collateral is less than the total risk exposure, the collateral arrangement must only be taken into account to the extent that the collateral covers the risk exposure.

3. Where the risk mitigation instrument is accompanied by another risk mitigation arrangement, the other arrangement, whether viewed separately or in combination, meets the relevant requirements in Parts A to C of this Attachment.

Attachment 2: Providing for Counterparty Default Risk on Risk Mitigation Instruments

1. Insurers are required to account for default risk in relation to exposures that may be subject to losses from credit default events as part of their market risk capital requirement. This requirement extends to recoverables from risk mitigation instruments recognised in the calculation of the SCR, given that recoverables from eligible risk mitigation instruments must be treated as a "type 1 exposure" in the default risk module of the market risk capital requirement (refer to section 9 of FSI 4.1 (Market Risk Capital Requirement)).

2. In addition to calculating the capital required for default risk under FSI 4.1 (Market Risk Capital Requirement), insurers are also required to apply a further adjustment for risk mitigation instruments assumed in the calculation of the SCR. This adjustment is to account for the risk of impairment on recoverables from risk mitigation instruments, where the effects of risk mitigation have been recognised in a specific module of the SCR calculation. The adjustment must be applied in the relevant module where risk mitigation has been assumed (e.g. reinsurance arrangements which are assumed to mitigate an insurer's underwriting risks must have the adjustment applied to the relevant underwriting risk module).[18]

3. The adjustment for risk mitigation instruments must be calculated by deducting an impairment factor (IMP) from the best estimate of the recoverables recognised in the module where risk mitigation has been assumed. The impairment factor must take into account the overall risk exposure of the insurer to its counterparties based on the stresses under the relevant module, irrespective of the legal form of their contractual obligations to that insurer.

4. The impairment factor (IMP) must be calculated as:

   $$IMP = -\left(Mkt_{def,type\_1} - IMP_{stress}\right)$$

   Where:

$Mkt_{def,type\_1}$	=	The capital requirement for default risk for type 1 exposures, as calculated under section 9.17 of FSI 4.1 (Market Risk Capital Requirement)
IMP_{stress}	=	The potential loss across all counterparties in the spread and default module, after the application of the stresses in the relevant module where risk mitigation has been assumed, as calculated under section 5 below

5. The IMP_{stress} factor must be calculated using the same methodology to calculate the default risk capital requirement for type 1 exposures (i.e. $Mkt_{def,type\_1}$), but where the loss-given-default estimates are adjusted for additional losses that may arise from the stresses considered under the relevant module where risk mitigation has been assumed. That is, IMP_{stress} must be calculated as:

[18] Similarly, the adjustment for the risk of impairment on interest rate swaps used to hedge interest rate risk must be incorporated in the interest rate risk module of market risk.

$$IMP_{stress} = min\left(\sum_i LGD_i\,, 3\ \cdot \sqrt{V}\right)$$

Where:

LGD_i	=	The loss-given-default to each independent counterparty/issuer *i* included in the spread and default module of FSI 4.1 (Market Risk Capital Requirement), after the application of the stresses in the relevant module where risk mitigation has been assumed
V	=	The variance of the loss distribution for type 1 exposures, as calculated under section 9.18 of FSI 4.1 (Market Risk Capital Requirement)

6. Sections 9.23 and 9.24 of FSI 4.1 (Market Risk Capital Requirement) provide further details regarding the measurement of the loss-given-default parameters for recoverables from eligible risk mitigation instruments.

Attachment 3: Calculating the SCR for Insurance-related Participations in the Same Sector

The SCR for participations in insurance-related businesses that are in the same sector as the insurer must be calculated using the methodology set out in this Attachment.

1. An insurer with participations in insurance-related businesses that are in the same sector as the insurer must classify the participations into one of the following categories:

   a) "Global" participations – which should include participations in companies listed in regulated markets in countries which are members of the European Economic Area (EEA) or the Organisation for Economic Co-operation and Development (OECD);
   b) "SA" participations – which should include participations in companies listed on any South African stock exchange; and
   c) "Other" participations – which should include all other participations not already included in the Global and SA categories.

2. The capital requirement for participations in same-sector, insurance-related businesses for each category *i* defined above (SCR_{Part_i}) must be calculated as:

   $$SCR_{Part\_i} = max(\Delta BOF | participationshock_i, 0)$$

   Where

$\Delta\ BOF$	=	The change in the value of basic own funds
$participation\ shock_i$	=	Prescribed fall in the value of same-sector insurance-related participations in category *i*, where the prescribed fall is calculated based on the equity price shocks set out in section 6.11 of FSI 4.1 (Market Risk Capital Requirement)

3. The overall capital requirement for participations in same-sector, insurance-related businesses (SCR_{Part}) must then be calculated as the simple sum of the capital requirements for each category of participations, i.e.:

   $$SCR_{Part} = \sum_i SCR_{Part\_i}$$

Attachment 4: Calculating the SCR when Ring-fenced Funds are Involved

This Attachment sets out the methodology for calculating the SCR for an insurer with one or more ring-fenced funds, including cell structures. Since the calculation of the SCR for an insurer with ring-fenced funds is closely linked to the eligible own funds available within each fund, this Attachment also addresses the determination of eligible own funds when ring-fenced funds are involved (setting out those areas where the requirements of FSI 2.3 (Determination of Eligible Own Funds) are applicable in the context of a ring-fenced fund).

A. General procedure for calculating the SCR when ring-fenced funds are involved

1. An insurer with one or more ring-fenced funds must calculate separate notional SCRs for each of the ring-fenced funds and for the insurer as a whole (including the ring-fenced funds and business written outside the ring-fenced arrangements).

2. Insurers must apply the following steps in calculating the notional SCR for a ring-fenced fund not arising from a cell structure:

    a) The notional SCR for a ring-fenced fund is found by aggregating the SCR under the worst-case scenario for each risk category and risk component using the usual procedure for aggregation under the standardised formula. This procedure allows for recognition of diversification benefits between risks within a ring-fenced fund.
    b) The calculation of the capital required for a risk category or component is based on the impact on the basic own funds of an insurer. If the calculation of the capital required involves applying a scenario which results in an increase in basic own funds at the level of a ring-fenced fund, the notional SCR should take into account any potential increase of liabilities, where relevant (e.g. additional distributions of profits to policyholders where policyholder arrangements exist).[19]
    c) The SCR at the level of each ring-fenced fund must be calculated net of the mitigating effect of future discretionary benefits. Where profit participation exists, assumptions about the variation of future bonus rates should be realistic and have due regard to the impact of the scenario at the level of the ring-fenced fund and to any contractual, legal or statutory clauses of the profit participation mechanism. With respect to each ring-fenced fund, the relevant (downward) adjustment of the SCR for the loss-absorbing capacity of deferred taxes should not exceed, in relation to the particular ring-fenced fund, the amount of future discretionary benefits within the ring-fenced fund.

3. Insurers must apply the following steps in calculating the notional SCR for ring-fenced funds arising from cell structures:

    a) The notional SCR for a cell is found by aggregating the SCR under the worst-case scenario for each risk category and risk component using the usual procedure for aggregation under the standardised formula. This procedure allows for recognition of diversification benefits between risks within a cell.
    b) The calculation of the capital required for a risk category or component is based on the impact on the basic own funds of a cell.
    c) The SCR at the level of each cell must be calculated net of the mitigating effect of future discretionary benefits. Where profit participation exists, assumptions about

[19] This can only happen in the cases of bi-directional scenarios (interest rate risk, currency risk, lapse risk), where there may be an increase in basic own funds from one of the directional scenarios at the ring-fenced fund level but not at the insurer level.

the variation of future bonus rates should be realistic and have due regard to the impact of the scenario at the level of the cell and to any contractual, legal or statutory clauses of the profit participation mechanism. With respect to each cell, the relevant (downward) adjustment of the SCR for the loss-absorbing capacity of deferred taxes should not exceed, in relation to the particular cell, the amount of future discretionary benefits within the cell.

d) The notional SCR for a cell must also take into account the risk of counterparty default associated with the promoter where the eligible own funds of the cell are less than the stand-alone SCR for the cell (refer to section C.4 below).
e) The notional SCR for a cell is subject to a minimum of R1 million.

4. Based on the notional SCRs calculated for each ring-fenced fund and business written outside the ring-fenced arrangements, the SCR for the insurer as a whole should then be calculated as:

    a) For ring-fenced fund arrangements not involving a cell structure: The simple sum of the notional SCRs for the ring-fenced funds and the remaining business of the insurer outside the ring-fenced funds; or
    b) For ring-fenced fund arrangements involving a cell structure: The calculation set out in Part C of this Attachment.

B. Adjustment to Eligible Own Funds of insurer due to the existence of ring-fenced funds

1. The eligible own funds of the insurer will be decreased to the extent that surplus eligible own funds in a ring-fenced fund are not available to meet losses outside that ring-fenced fund.

2. In determining eligible own funds for ring-fenced funds and the insurer as a whole, an insurer should:

    a) Determine the amount of eligible own funds that reside outside of the ring-fenced funds in accordance with the requirements set out in FSI 2.3 (Determination of Eligible Own Funds);
    b) Determine the amount of eligible own funds that reside within each of the ring-fenced funds in accordance with the requirements set out in FSI 2.3 (Determination of Eligible Own Funds);
    c) Exclude amounts representing future shareholder transfers from eligible own funds where the transfer (via a distribution of dividends to shareholders or otherwise) has been declared or approved by the board of directors;[20] and
    d) For the insurer as a whole, recognise as eligible own funds in increasing levels of tiering the amount up to the minimum of the notional SCR and eligible own funds (with a floor of zero) of each ring-fenced fund, plus the eligible own funds of the insurer outside of the ring-fenced funds.

C. Calculating the total SCR for an insurer with a cell structure

1. The following calculations are specific to cell structures only (not for other ring-fenced funds arrangements).

2. The total SCR for the insurer as a whole where a cell structure is involved (SCR_{Total}) must be calculated as:

[20] For clarity, amounts representing the value of future shareholder transfers may be assumed to be unrestricted and included as part of the eligible own funds available to meet the SCR for the insurer as a whole.

$$SCR_{Total} = SCR_{promoter} + SCR_{cells} + SCR_{diversified\_shortfall}$$

Where:

$SCR_{promoter}$	=	SCR for the promoter as calculated under section C.3 below
SCR_{cells}	=	Adjusted SCR across cells as calculated under section C.4 below
$SCR_{diversified\_shortfall}$	=	Diversified SCR shortfall across cells as calculated under sections C.5 to C.8 below

3. The SCR for the promoter ($SCR_{promoter}$) refers to the promoter's contribution to the overall diversified SCR excluding business in the cells, i.e. the SCR for the promoter business, and must be calculated as:

$$SCR_{promoter} = max\left(SCR_{diversified\_incl\ promoter} - SCR_{diversified\_excl\ promoter}, 0\right)$$

Where:

$SCR_{diversified\_incl\ promoter}$	=	The diversified SCR including the promoter business, which must be calculated by pooling all business together as if it had been written under the same insurance licence (i.e. as one entity)[21]
$SCR_{diversified\_excl\ promoter}$	=	The diversified SCR excluding the promoter business, calculated in the same way as $SCR_{diversified\_incl\ promoter}$, but with assets and liabilities outside the ring-fenced arrangements excluded from the calculation

4. To calculate the SCR across cells, the SCR and eligible own funds for each cell must be calculated as if the cell were a stand-alone entity. In the case of negative eligible own funds in a cell, the SCR for that cell needs to include a capital charge for the risk of counterparty default risk associated with the promoter (i.e. assuming the promoter implicitly provides a loan to the cell equal to the cell's negative eligible own funds). The adjusted SCR across cells (SCR_{cells}) represents the amount of capital that can be covered by all cells after taking into account any capital charge for counterparty default risk for cells with negative eligible own funds, and must be calculated as:

$$SCR_{cells} = \sum_{i} SCR_{cell\_i}$$

Where:

SCR_{cell_i}	=	The SCR covered by cell *i*, representing the amount of capital that can be covered by cell *i*. The amount that can be covered is the lesser of the SCR or the eligible own funds of the cell, with a floor of zero. That is, SCR_{cell_i}

[21] That is, a full SCR calculation is performed on all business irrespective of whether it is ring-fenced or not.

must be calculated as:

$$SCR_{cell\_i} = max[min(SCR_i, EOF_i), 0]$$

SCR_i = SCR for cell *i*

EOF_i = Eligible own funds for cell *i*

5. The calculation of the diversified SCR shortfall across cells ($SCR_{diversified\_shortfall}$) involves three steps:

   a) Determining the shortfall per cell ($SCR_{shortfall,i}$);
   b) Calculating a correlation factor (β); and
   c) Calculating the diversified SCR covered by the promoter ($SCR_{diversified\_shortfall}$).

6. The diversified SCR covered by the promoter represents a diversified SCR calculated from the shortfalls within the cells. The shortfall for each cell ($SCR_{shortfall,i}$) is calculated as the difference between the cell's SCR and eligible own funds, in those cases where eligible own funds are not sufficient to cover the SCR in a particular cell. Negative eligible own funds should not be included in this calculation (i.e. where the cell's eligible own funds are negative, the shortfall will be equal to the SCR for that cell, including the counterparty default risk charge associated with the promoter set out in section C.4 above).

7. The diversified shortfall is then calculated by applying a correlation matrix to the various shortfalls of the cells. It is assumed that the correlation factors between cells are the same. The correlation factor is calculated assuming full diversification across cells. Thus, it represents a correlation factor such that, if applied to the undiversified SCR, will arrive at the diversified SCR excluding promoter business (i.e. $SCR_{diversified\_excl\ promoter}$ as calculated in section C.3 above). The correlation factor, β, can be back-solved in the following way:

$$\beta = \frac{(SCR_{diversified\_excl\ promoter})^2 - \sum_i (SCR_i)^2}{(\sum_i SCR_i)^2 - \sum_i (SCR_i)^2}$$

   Where $SCR_{diversified\_excl\ promoter}$ and SCR_i are as defined in sections C.3 and C.4 respectively.

8. The diversified SCR covered by the promoter is calculated by applying the correlation factor β to the SCR covered by the promoter on behalf of the cells. That is, the diversified SCR shortfall across cells ($SCR_{diversified\_shortfall}$) which is covered by the promoter should be calculated as:

$$SCR_{diversified\_shortfall} = \sqrt{(1-\beta) \cdot \sum_i \left(SCR_{shortfall,i}\right)^2 + \beta \cdot \left(\sum_i SCR_{shortfall,i}\right)^2}$$

   Where:

   β = Correlation factor as calculated under section C.7 above

   $SCR_{shortfall,i}$ = Shortfall in cell *i* covered by the promoter as

calculated under section C.6 above

Attachment 5: Adjustment for Loss-Absorbing Capacity of Deferred Taxes

1. The Financial Soundness Standards for Insurers require a valuation basis of technical provisions that is likely to be different to the basis on which insurers' profits are taxed. This difference means that deferred tax assets and liabilities are created on an insurer's balance sheet, which may be available to absorb losses for the stresses considered under the calculation of the SCR. The adjustment factor ($AdjDT$) is a factor designed to allow for the loss-absorbing capacity of deferred taxes that may arise under the stresses involved in the calculation of the SCR.

2. Insurers must set the adjustment factor for the loss-absorbing capacity of deferred taxes ($AdjDT$) equal to the change in the value of the insurer's deferred taxes that would result from an instantaneous loss of an amount that is equal to:

   $SCR_{shock} = BSCR + SCR_{Op} + SCR_{Part}$

   Where:

$BSCR$	=	The Basic Solvency Capital Requirement as defined in section 6.3 of this Standard
SCR_{Op}	=	The capital requirement for operational risk
SCR_{Part}	=	The capital requirement for risks in relation to same-sector, insurance-related participations, as calculated under Attachment 3 of this Standard

1. For the purpose of this calculation, deferred taxes should be valued in accordance with the requirements set out in FSI 2.1 (Valuation of Assets and Liabilities Other than Technical Provisions), following a loss equal to SCR_{shock}.

2. For the purpose of this calculation, a decrease in deferred tax liabilities should result in a negative adjustment for the loss-absorbing capacity of deferred taxes. The adjustment for loss absorbency of deferred taxes should not be positive.

3. To the extent the calculation of $AdjDT$ results in the raising of a deferred tax asset, the maximum amount which should be raised is that which can be recovered from the insurer's ensuing three years' profit (i.e. profits raised in the three years after the stressed event).

4. The calculation should make appropriate allowance for which tax fund the loss is expected to occur.