CEIOPS’ Advice for Level 2 Implementing Measures on Solvency II:

Articles 99 (b) and 111(h)  
Ring-Fenced Funds

(former Consultation Paper 68)
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1. Introduction

1.1. In its letter of 19 July 2007, the European Commission requested CEIOPS to provide final, fully consulted advice on Level 2 implementing measures by October 2009 and recommended CEIOPS to develop Level 3 guidance on certain areas to foster supervisory convergence. On 12 June 2009 the European Commission sent a letter with further guidance regarding the Solvency II project, including the list of implementing measures and timetable until implementation.\(^1\)

1.2. This Paper aims at providing advice with regard to the adjustments that should be made to reflect the lack of transferability of own funds and the reduced scope for risk diversification at the level of the SCR related to ring-fenced funds, as requested in Articles 99 b) and 111(h) (the Solvency II Level 1 text).\(^2\)

1.3. The present Paper deals with ring-fencing arrangements\(^3\) that are expected to remain following the introduction of Solvency II. The presence or absence of ring-fencing should be assessed by reference to the Level 1 Directive text. As explained in [\(\Rightarrow\) paragraph 3.18] CEIOPS recommends the development of Level 3 guidance to assist in the identification of ring-fenced funds having regard to different national legal and product frameworks in Member States. In cases where such assessment leads to the identification of a ring-fencing arrangement, the advice set out in this consultation paper should apply.

1.4. CEIOPS notes that ring-fenced funds do not arise in a number of Member States.

2. Extract from Level 1 text

Legal basis for the implementing measures

2.1. Article 99 – Implementing measures within the section on Own Funds:

"The Commission shall adopt implementing measures laying down:

(...)

\(^1\) See http://www.ceiops.eu/content/view/5/5/
\(^3\) It should be noted that the paper aims to set out the principles of the treatment of ring-fenced structures but does not attempt to answer detailed questions on the calculations, for example for components such as deferred taxes.
b) the adjustments that should be made to reflect the lack of transferability of those own funds items that can only be used to cover losses arising from a particular segment of liabilities or from particular risks (ring fenced funds)”

2.2. Article 111(1) – Implementing measures within the section on Solvency Capital Requirement:

“(…) the Commission shall adopt implementing measures laying down the following:

(...)

(h) the methods and adjustments to be used to reflect the reduced scope for risk diversification of insurers related to ring fenced funds”

Other relevant Level 1 text for providing background to the advice

2.3. Recitals:

(49) Not all assets within an undertaking are unrestricted. In some Member States, specific products origin some ring-fenced fund structures which give one class of policyholders’ greater rights to assets within their own “fund”. Although these assets are included in computing the excess of assets over liabilities for own-funds purposes they cannot, in fact be made available to meet the risks outside the ring-fenced fund. To be consistent with the economic approach, the assessment of own-funds needs to be adjusted to reflect the different nature of assets, which form part of a ring-fenced arrangement. Similarly the SCR calculation should reflect the reduction in pooling/diversification related to those ring fenced funds.”

3. Advice

3.1 Explanatory text

3.1.1. Ring-fenced funds in QIS4

3.1. QIS4 collected information on the potential effects of transferability restrictions on own funds held within ring-fenced funds.

3.2. The approach tested the effect on the own funds side only, by assuming that any amount of ‘restricted own funds’ within a ring-fenced fund can only contribute to the ‘total own funds’ of the undertaking up to the proportional contribution of the ring-fenced fund in the total SCR. This

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4 The term ‘restricted own funds’ is used in the context of this paper to refer to elements of the ‘excess of assets over liabilities’ and subordinated liabilities within ring-fenced funds that are not available to cover all types of losses within the undertaking.
required, as an intermediate step, the calculation of notional SCR’s at the level of each ring-fenced fund. QIS 4 also tested an approach to calculate the notional SCR which was rejected by supervisors and the industry because it did not reflect the change in diversification benefit.

3.3. The treatment proposed was developed for QIS4 purposes only and it was acknowledged that further analysis of this issue would be necessary under the Solvency II framework.

3.4. QIS4 results reinforced that the issue of ring-fenced funds may be significant for at least seven countries, but both undertakings and supervisors had mixed views on the suitability and practicality of the QIS4 methodology in relation to the calculation of the notional SCR.

3.5. Most ring-fenced funds were reported by life insurers that write with-profit business, but ring-fenced funds resulting from regulatory requirements (for example, in relation to pension contracts) and ring-fenced funds in Protection and Indemnity Associations were also reported. The treatment of these funds may have a large impact for a small number of countries and potentially for other countries. Some supervisors considered that the quantitative results may even understate the number of ring-fenced funds in existence.

3.6. QIS 4 results showed that there is general agreement that only the amount of own funds within the ring-fenced fund that is needed to meet the ‘notional’ capital requirements of the ring-fenced fund can be used to meet the undertaking’s SCR.

3.7. However, many participants and supervisors did not agree that using a proportionate amount of the SCR as the capital requirement for the ring-fenced fund is appropriate. This is mainly because the existence of ring-fenced funds could remove diversification benefits.

3.1.2. Identification of ring-fenced funds

3.8. With regard to the scope of application of the present advice, namely what type of arrangements should be considered as ring-fenced funds (hereafter: RFF), CEIOPS is aware that there is a large variety of ring-fenced-type funds across the EEA, and also that the issue is not of similar relevance to all Member States.

3.9. When assessing the solvency of an undertaking with ring-fenced funds, there are two relevant aspects that need to be carefully analysed, in order to reflect the economic effect of ring-fencing and the potential implications for the measurement of own funds and capital requirements.

3.10. The first aspect relates to the availability of own funds within an undertaking in the presence of ring-fenced funds and the measurement of the extent to which own funds held within the ring-fenced fund (restricted own funds) can contribute towards the coverage of the total SCR of the undertaking.
3.11. The second aspect relates to the calculation of the undertaking’s SCR when ring-fenced funds are in place. The problem lies in the fact that the existence of ring-fencing may reduce the overall level of diversification between risks, i.e. reduces the extent to which losses and profits observed in and out of the ring-fenced fund may compensate each other.

3.12. The proposals in this advice neither seek to extend nor to narrow the scope of arrangements to be treated as ring-fenced funds under the Level 1 text. Different arrangements in different Member States may fall within the scope of the proposals. CEIOPS is aiming at providing an appropriate pragmatic and principles-based treatment for ring-fenced-type funds across the EEA, and should not seek to harmonise the legal or contractual structure of ring-fenced funds nor the products which could give rise to them through its approach.

3.13. Furthermore, CEIOPS acknowledges that the general approach for the identification and treatment of RFF, presented in the following sections, will apply on arrangements that already currently exist. Different types of arrangement may occur in the future. Therefore, a principles-based approach is necessary.

3.14. Besides the ring-fenced funds discussed in this Paper, an undertaking may have other specific items of own funds with restricted loss-absorption capacity. As discussed in CEIOPS-DOC-39/09 (former CP46, see (October 2009), see http://www.ceiops.eu/content/view/17/21/, CEIOPS is of the opinion that these items can only be eligible for inclusion in own funds in relation to the risks they cover and up to the contribution that these risks provide to the total SCR. CEIOPS believes that the treatment of these own funds items should be broadly consistent with the approach developed for ring-fenced funds.

3.15. Finally, the treatment of own funds in RFF should be consistent with the treatment of own funds in the group solvency assessment in order to prevent regulatory arbitrage (see article 222(3) of the level 1 text). The treatment of RFF should not induce undertakings to transform a given RFF in a related undertaking in order to take advantage of the risk diversification if the related undertaking is consolidated with the default method.
3.1.3. Nature of ring-fenced funds

3.16. A ring-fenced fund arises as a result of an arrangement where:

a) There is a barrier to the sharing of profits/losses arising from different parts of the undertaking’s business leading to a reduction in pooling/diversification related to that ring fenced fund or;

b) Own funds (restricted own funds) can only be used to cover losses on a defined portion of the undertaking’s (re)insurance portfolio or with respect to particular policyholders or in relation to particular risks such that those restricted own funds are only capable of fulfilling the criteria in Article 93(1) (a) and/or (b) in respect of that defined portion of the portfolio, or with respect to those policyholders or those risks; or

c) Both a) and b) apply.

3.17. Depending on the specific provisions of national law, insolvency law, contract law and product regulation, as well as the products which exist in different Member States ring fenced funds may arise which give rise to the following treatments:

a) There is a need to make an adjustment to the calculation of the undertaking’s SCR; or

b) There is a need to make an adjustment to restrict own funds arising in respect of the ring fenced fund; or

3.18. CEIOPS recognises that these high level principles are necessary to set the context in which adjustments are developed as required by the implementing measures. However it will be helpful for industry and supervisory authorities to have more specific guidance to make clear the detailed characteristics of different types of arrangements or products giving rise to ring fenced funds. CEIOPS therefore proposes the development of Level 3 guidance which can promote a harmonised approach in accordance with Solvency II but respecting the authority and impact of national legal frameworks as described above. Such guidance should make clear how and why ring fencing might be appropriate rather than merely taking the form of a list, not least to assist in the identification of ring fencing implications of any future arrangements.

3.19. In feedback to the consultation industry bodies offered to assist in the further development of this advice. CEIOPS will take up this offer of assistance which should inform not only the development of the Level 3 guidance but also the design of QIS 5 specifications.
3.20. At this stage CEIOPS believes it would in any event be helpful to clarify that it does not see that certain types of business would fall within the scope of ring-fenced funds assuming they do not exhibit any specific features over and above what is generally understood. These include unit linked and reinsurance business.

3.21. In line with the Level 1 text, undertakings developing full or partial internal models will have to ensure that the above mentioned restrictions stemming from RFF are adequately dealt with and reflected in the internal model results. For this purpose, the principles set out in this advice shall be taken into account, although the practical details of the adjustments and calculations may be different.

3.1.4. General approach for the treatment of ring-fenced funds

General procedure to calculate the SCR

3.22. In the presence of ring-fenced funds which affect the calculation of the SCR, the following steps shall apply:

   a) When performing the calculation of each individual capital charge, the corresponding impact at the level of sub-portfolios of assets and liabilities (those relevant to capture the effect of each ring-fenced fund) shall be computed;

   b) Where positive effects⁵ are observed at the level of a ring-fenced fund, the gross⁶ capital charge at such level should take into account any potential increase of liabilities (e.g. additional distribution of profits to policyholders) even though the overall impact of the shock on the undertaking is negative. In practice, this can only happen in those cases of bidirectional scenarios (interest rate risk, currency risk, lapse risk) where positive effects calculated at the level of a ring-fenced fund can be observed.

   c) In parallel, the capital charges at the level of each ring-fenced fund should be calculated net of the mitigating effect of future discretionary benefits. Where the ring-fenced fund relates to the existence of profit sharing mechanisms, the assumptions on the variation of future bonus rates should be realistic, with due regard to the impact of the shock at the level of the ring-fenced fund and to any contractual, legal or statutory clauses of the profit sharing mechanism. The relevant (downward) adjustment for the loss absorbency capacity of technical provisions should not exceed, in relation to a particular ring-fenced

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⁵ Note that the reference to positive effects should be understood as positive impacts of the SCR scenario ($\Delta$NAV) where the change in NAV is calculated before taking into account any additional increase of liabilities implied by the arrangement.

⁶ Gross of the mitigating effect of future discretionary benefits (Annex B further explains the rationale for this calculation).
fund, the amount of future discretionary benefits within the ring-fenced fund;\(^7\)

d) For each of gross/net, the total capital charge for the individual risk is given by the sum of the capital charges calculated at the level of each ring-fenced fund and that calculated at the level of the remaining sub-portfolio of business;

e) For each of gross/net, the total capital charges for each individual risk are then aggregated using the usual procedure of the standard formula to derive the total SCR.

3.23. The procedure outlined in the previous number assumes that the modular approach is used to calculate the adjustment for loss absorbency of technical provisions. With respect to the alternative approach – termed equivalent scenario approach – the procedure would be equivalent, except that step c) above would be applied at the SCR level (step c) would only need to be applied at the individual risk charge level if the equivalent scenario is derived using net capital charges as inputs).\(^8\)

3.24. It should be noted that this description of the SCR calculation does not constitute a ‘new’ approach conceptually. In fact, the above approach (as recognised by recital 29b) intends to highlight the importance of performing the calculation of the individual risk charges at the more granular level when ring-fenced funds are in place. A calculation of the SCR charges which only looks at the overall impact at level of the undertaking, thus ignoring these arrangements, can lead to significant underestimations of the ‘true’ capital charges.

**General procedure to calculate own funds in the presence of ring-fenced funds where an adjustment to own funds is relevant**

3.25. In the presence of ring-fenced funds which have restricted own funds or the potential to have restricted own funds, the restricted availability should be reflected through an adjustment to own funds.

3.26. The appropriate adjustment to own funds should be determined based on the following principles:

- If the ring-fenced fund has sufficient own funds to cover the notional SCR for that ring-fenced fund, then any surplus over the notional SCR cannot be used to cover risks in the rest of the firm and should be excluded.

- Notwithstanding legal and contractual requirements, if the ring-fenced fund does not have sufficient capital to meet the notional SCR for that ring-fenced fund, then the deficit should be covered by own funds

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7 In such cases, the decision on which scenario should be taken on board (upward or downward shock) should relate to the worst overall result to the undertaking (net charges) after the potential increases in liabilities referred in the previous bullet point.

8 For detailed information on the approaches to derive the adjustment for the loss absorbency capacity of technical provisions, consult CEIOPS Advice on SCR - Loss absorbing capacity of technical provisions, CEIOPS-DOC-46/09 (October 2009), see http://www.ceiops.eu/content/view/17/21/ (former CP 54).
outside the ring-fenced fund that could be transferred to meet the deficit.

3.27. The calculation also needs to address the treatment of future transfers attributable to shareholders in respect of profit sharing arrangements where benefits to policyholders are reflected in technical provisions – for example 10%/90% ("shareholder value"). These future transfers should not form part of the own funds of the ring fenced fund when calculating the ring fencing restriction.

3.28. The following steps outline the appropriate adjustment to the eligible own funds in practice. A numerical example is also included in Annex B.2.

a. Calculate a notional SCR for each ring-fenced fund as well as a notional SCR for risks outside any ring-fenced fund. Note that the notional SCR should be calculated for each ring-fenced fund as if that fund were a standalone entity, but based on the worst case scenario for the undertaking as a whole. In cases of bidirectional scenarios, if the worst case scenario produces a negative result for a particular capital charge (after taking into account potential increase of liabilities due to profit sharing mechanisms) then it should be set to zero.

b. If a ring-fenced fund has sufficient own funds to cover its notional SCR, then the total own funds available to meet the SCR for the undertaking as a whole should exclude the excess own funds in the ring-fenced fund. Own funds used to meet the notional SCR for the ring-fenced funds would be included in total own funds as would the shareholder value described in para 3.27.

c. If a ring-fenced fund does not have sufficient own funds to meet its notional SCR, then the own funds which meet any part of the notional SCR may nonetheless be recognised in meeting the SCR for the undertaking as a whole.

3.29. In line with the principle of proportionality, some adjustments to this approach may be appropriate for those ring-fenced funds which are not material either individually or in total. Materiality should be assessed by reference to the assets and liabilities of the ring fenced fund.

### 3.2 CEIOPS’ advice

3.30. A ring-fenced fund arises as a result of an arrangement where:

a) There is a restriction to the sharing of profits/losses arising from different parts of the undertaking’s business leading to a reduction in pooling/diversification related to that ring fenced fund; or

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9 See Case 1 in the example in Annex B.
10 See Case 2 in the example in Annex B.
b) Own funds (restricted own funds) can only be used to cover losses on a defined portion of the undertaking’s (re)insurance portfolio or with respect to particular policyholders or in relation to particular risks such that those restricted own funds are only capable of fulfilling the criteria in Article 93(1) (a) and/or (b) in respect of that defined portion of the portfolio, or with respect to those policyholders or those risks; or

c) Both a) and b) apply.

3.31. Depending on the specific provisions of national law, insolvency law, contract law and product regulation, as well as the products which exist in different Member States ring fenced funds may arise which give rise to the following treatments:

a) There is a need to make an adjustment to the calculation of the undertaking’s SCR; or

b) There is a need to make an adjustment to restrict own funds arising in respect of the ring fenced fund; or

3.32. CEIOPS recognises that these high level principles are necessary to set the context in which adjustments are developed as required by the implementing measures. However it will be helpful for industry and supervisory authorities to have more specific guidance to make clear the detailed characteristics of different types of arrangements or products giving rise to ring-fenced funds. CEIOPS therefore proposes the development of Level 3 guidance which can promote a harmonised approach in accordance with Solvency II but respecting the authority and impact of national legal frameworks as described above. Such guidance should make clear how and why ring fencing might be appropriate rather than merely taking the form of a list, not least to assist in the identification of ring fencing implications of any future arrangements.

3.33. At this stage CEIOPS believes it would in any event be helpful to clarify that it does not see that certain types of business would fall within the scope of ring fenced funds assuming they do not exhibit any specific features over and above what is generally understood. These include unit linked and reinsurance business.

3.34. In line with the Level 1 text, undertakings developing full or partial internal models will have to ensure that the above mentioned restrictions stemming from RFF are adequately dealt with and reflected in the internal model results. For this purpose, the principles set out in this advice shall be taken into account, although the practical details of the adjustments and calculations may be different.

General procedure to calculate the SCR in the presence of ring-fenced funds which affect the SCR
3.35. In the presence of ring-fenced funds which affect the calculation of the SCR, the following steps shall apply:

a) When performing the calculation of each individual capital charge, the corresponding impact at the level of sub-portfolios of assets and liabilities (those relevant to capture the effect of each ring-fenced fund) shall be computed;

a) Where positive effects are observed at the level of a ring-fenced fund, the gross capital charge at such level should take into account any potential increase of liabilities (e.g. additional distribution of profits to policyholders) even though the overall impact of the shock on the undertaking is negative. In practice, this can only happen in those cases of bidirectional scenarios (interest rate risk, currency risk, lapse risk) where positive effects calculated at the level of a ring-fenced fund can be observed;

b) In parallel, the capital charges at the level of each ring-fenced fund should be calculated net of the mitigating effect of future discretionary benefits. Where the ring-fenced fund relates to the existence of profit sharing mechanisms, the assumptions on the variation of future bonus rates should be realistic, with due regard to the impact of the shock at the level of the ring-fenced fund and to any contractual, legal or statutory clauses of the profit sharing mechanism. The relevant (downward) adjustment for the loss absorbency capacity of technical provisions should not exceed, in relation to a particular ring-fenced fund, the amount of future discretionary benefits within the ring-fenced fund;

c) For each of gross/net, the total capital charge for the individual risk is given by the sum of the capital charges calculated at the level of each ring-fenced fund and that calculated at the level of the remaining sub-portfolio of business;

d) For each of gross/net, the total capital charges for each individual risk are then aggregated using the usual procedure of the standard formula to derive the total SCR.

**General procedure to calculate the total eligible own funds in the presence of ring-fenced funds**

3.36. The appropriate adjustment to own funds should be determined based on the following principles:

- If the ring-fenced fund has sufficient own funds to cover the notional SCR for that ring-fenced fund, then any surplus over the notional SCR cannot be used to cover risks in the rest of the firm and should be excluded.

- Notwithstanding legal and contractual requirements, if the ring-fenced fund does not have sufficient capital to meet the notional SCR for that ring-fenced fund, then the deficit should be covered by own funds outside the ring-fenced fund that could be transferred to meet the
deficit.

3.37. The calculation also needs to address the treatment of future transfers attributable to shareholders in respect of profit sharing arrangements where benefits to policyholders are reflected in technical provisions – for example 10%/90% ("shareholder value"). These future transfers should not form part of the own funds of the ring fenced fund when calculating the ring fencing restriction. When performing the adjustment to the eligible own funds in practice, undertakings should calculate a notional SCR for each ring-fenced fund as well as a notional SCR for risks outside any ring-fenced fund. Note that the notional SCR should be calculated for each ring-fenced fund as if that fund were a standalone entity, but based on the worst case scenario for the undertaking as a whole. In cases of bidirectional scenarios, if the worst case scenario produces a negative result for a particular capital charge (after taking into account potential increase of liabilities due to profit sharing mechanisms) then it should be set to zero.
ANNEX A – Examples of ring-fenced funds

A.1. An ‘experience fund’ used to calculate discretionary benefits for a profit-sharing arrangement

Key features

A.1.1. Policyholders share in the profits/experience from an identified pool of assets and liabilities. The assets/liabilities may be physically separated from the rest of the undertaking but do not need to be. The assets/liabilities form a ring-fenced fund (experience fund).

A.1.2. Providers of capital to the profit sharing arrangement may receive regular payments or charges but cannot use (fully or partially) the assets of the ring-fenced fund. The assets within the ring-fenced fund cannot be used (fully or partially) to meet the losses arising from liabilities outside the fund.

A.1.3. All assets within the fund are held to meet the benefits for the current policyholders. However, any surplus assets above those required to meet benefits to the current policyholders (i.e. any own funds within the ring-fenced fund) are fully transferable, can be returned to the shareholders/other providers of capital or can be used to absorb losses as and when they occur.

Reasons for reduced loss-absorbency

A.1.4. Example A.1. ring-fenced funds do not result in restricted own-funds in Solvency II as all assets within the fund are held to meet the benefits for current policyholders. It should be noted that the Solvency II valuation basis for technical provisions requires that all guaranteed and future discretionary benefits to current policyholders are included as liabilities. Even if an excess of assets over liabilities did exist within a fund, this would not be considered restricted own funds if such excess can be realised and taken out of the fund with no restrictions and is available to absorb losses as and where they occur (including outside that fund). If the own funds were not able to absorb all losses the treatment proposed would be the same as for example A.2. discussed below.

A.1.5. However, Example A.1. ring-fenced funds do affect the ability to pool risk as the emerging profit within the ring-fenced fund is immediately attributed to policyholders in the particular fund, resulting in an increase to technical provisions in relation to liabilities of that fund. It therefore cannot be used (or cannot be used in full) to cover losses outside the fund.

A.1.6. For instance, where a profit has been observed in the ring-fenced fund and losses occur elsewhere within the undertaking, there is an increase in technical provisions equivalent to the full (or partial) amount of such profit and therefore there are no additional own funds (or there are less
additional own funds) that can be used to meet losses in other parts of the business. Profit can only be partly used, after the allocation of additional discretionary bonuses to the relevant policyholders. The extent of such constraints depends on the design of the profit sharing mechanism, on any contractual, legal and statutory requirements applicable and on the reasonableness of the assumed management actions.

A.1.7. While the amount of total eligible own funds would not necessarily need any adjustment (due to the fact that emerging profit within a ring-fenced fund would automatically increase technical provisions relating to liabilities of that fund, thus not generating restricted own fund items), the calculation of the SCR needs to properly reflect the potential lack of diversification between profits and losses in different areas of the undertaking.

A.1.8. In addition, the undertaking may often want to calculate an economic valuation in order to guide bonus policy, investment policy and other parts of the risk management based just on the assets and liabilities within the ring-fenced fund (i.e. the calculation of ‘notional’ SCR at the level of the ring-fenced fund). This assessment can be used to highlight the risks within the ring-fenced fund and calculate the likelihood of reduction in the undertakings’ overall level of diversification (and the events which could cause this to occur). However, this should not be confused with the adjustments required to calculate the SCR for the whole undertaking, which are explained below.

Practical example of application

A.1.9. Assume that an undertaking has two ‘experience funds’ in place – funds A and B – which are used as the basis to calculate the amount of profit sharing for the corresponding two groups of policyholders.

A.1.10. Assume that, in a given scenario, fund A reports profits of 100 (above expectations) while fund B reports losses of 300 (after any loss absorbency capacity of future discretionary benefits in fund B). Looking from the perspective of the undertaking as a whole, it may seem that having own funds of 200 would suffice to compensate for the total losses. However, this is only true if the total profit of 100 reported in fund A can be used in full to absorb losses elsewhere in the undertaking.

A.1.11. But if the profit sharing mechanism in experience fund A imposes implicit or explicit restrictions on the use of profits to benefit other groups of policyholders or other areas of the undertaking, for example, because of legal requirements or contractual clauses, or even because such management action cannot be seen as realistic – the total loss at the level of the undertaking would necessarily be higher.

A.1.12. For instance, assume that the contractual clauses impose the distribution of a minimum of 80% of any profits generated in fund A to the relevant group of policyholders. In such case, from the total registered
profit of 100, only 20 could be taken away from fund A\textsuperscript{11} and used to compensate losses elsewhere in the undertaking. This then leads to a total overall loss of 280 (-300+20). Thus, in this example, the undertaking would need to have own funds of at least 280.

**Impact on Own Funds and SCR**

A.1.13. **Own funds:** By their nature, this type of ring-fenced funds does not generate restricted own funds. Therefore, no adjustment to the total amount of eligible own funds is necessary.

A.1.14. **SCR:** The undertaking’s total SCR should reflect the potential reduction of the overall level of diversification, due to the existence of barriers in the full use of profits generated at the level of ring-fenced funds to compensate losses elsewhere in the undertaking. This can be achieved by applying the procedures set in 3.22.

A.2. **A fund of assets and liabilities containing restricted own funds that are only available to cover losses arising in respect of particular policyholders or in relation to particular risks**

**Key features**

A.2.1. Policyholders within the ring-fenced fund have distinct rights relative to other business written by the insurer, and shareholders have no direct obligations to policyholders.

A.2.2. There are restrictions on the use of assets held within this fund to meet liabilities or losses arising outside the fund.

A.2.3. An excess of assets over liabilities is usually maintained within the fund and this excess is then deemed to be “restricted” own funds since its use is subject to the restrictions referred to in paragraph A.2.2.

A.2.4. There is often a profit sharing mechanism within the ring-fenced fund whereby policyholders receive a minimum proportion of the profits generated in the fund which are distributed through additional benefits or lower premium, and shareholders may then receive the balance of any distributed profits.

**Practical example of application**

A.2.5. A typical example is a profit sharing mechanism where the profits generated inside the ring-fenced fund may be (partially or fully) retained, but not necessarily to increase the benefits of the current policyholders. It may be, for instance, to smooth returns between generations of policyholders (current and future).

\textsuperscript{11} In line with what was said before, the amount of 80 would be used to increase the technical provisions for the group of policyholders in fund A, thus not generating restricted own fund items. Therefore, the contribution of fund A to total own funds would only be an increase by 20.
A.2.6. Thus, the main difference with the Example-1 ring-fenced fund is the existence of restricted own funds, in addition to the barrier to the sharing of profits/losses within the undertaking.

**Impact on Own Funds and SCR**

A.2.7. **Own funds:** Own funds available to meet losses within the ring-fenced fund (and not available to meet losses outside the fund) should be separately identified. The total amount of own funds at the level of undertaking should be reduced by the amount of the restricted own funds that are not being used for the purposes of meeting the notional SCR corresponding to the ring-fenced fund.

A.2.8. **SCR:** As with Example A.1., the undertaking’s total SCR should reflect the potential reduction of the overall level of diversification, due to the existence of barriers in the full use of profits generated at the level of ring-fenced funds to compensate losses elsewhere in the undertaking. This can be achieved by applying the procedures set in 3.22.
ANNEX B – Examples of calculation

B.1. Calculation of the SCR in the presence of ring-fenced funds

B.1.1. Assume an undertaking has two profit sharing mechanisms that benefit different groups of policyholders A and B. Those mechanisms are such that, by contractual laws, 80% of any future emerging profit (irrespective of the source, i.e. underwriting or financial) has to be allocated to the respective group of policyholders and technical provisions increase by the value of the 80% emerging profit. Only the remaining 20% can be released to shareholders.

B.1.2. The blocks of business A and B constitute two ring-fenced funds. Within each ring-fenced fund, the expected value of future profit sharing should be part of the value of technical provisions (following Solvency II valuation rules). The amount of future discretionary benefits for groups A and B is 100 and 300 respectively.

B.1.3. Additionally the undertaking holds a block of non-participating business C.

B.1.4. The undertaking needs to calculate the SCR following the approach outlined in paragraph 3.22.\textsuperscript{12}

B.1.5. For instance, the calculation of the interest rate risk charge, step a) would require the computation of the impact of both the upward and downward scenarios at the level of each ring-fenced fund (and at the level of the remaining business, C).

\begin{tabular}{|c|c|c|c|}
\hline
 & A & B & C & (Sum) \\
\hline
\multicolumn{4}{|c|}{\Delta NAV before any adjustment (per relevant segment)} \\
upward shock & 250 & -100 & -400 & -250 \\
downward shock & -80 & 200 & 500 & 620 \\
\hline
\end{tabular}

B.1.6. Step b)\textsuperscript{13} requires the reduction of positive \Delta NAV partial results, due to barriers of sharing the profits generated within a ring-fenced fund to other areas of the business. In the current example, where positive, the \Delta NAV results are reduced by 80% (such amount is retained in the ring-fenced fund and used to increase the benefits of the corresponding groups of policyholders).

\begin{tabular}{|c|c|c|c|}
\hline
 & A & B & C & (Sum) \\
\hline
\multicolumn{4}{|c|}{After increase of liabilities within the RFF} \\
upward shock & 50 & -100 & -400 & -450 \\
downward shock & -80 & 40 & 500 & 460 \\
\hline
\end{tabular}

\textsuperscript{12} For practicality reasons, it will be assumed that the adjustment for the loss absorbency capacity of technical provisions is calculated using the modular approach.

\textsuperscript{13} Note that this step only needs to be performed when calculating capital charges based on the worst of a range of scenarios – namely on interest rate, currency and lapse risks.
B.1.7. Step c) is concerned with the calculation of the net capital charges, and highlights the importance to assess the extent by which the management is able to reduce future discretionary bonuses at the level of each ring-fenced fund. In this example, it is assumed that the 1/3 of the negative ΔNAV results is mitigated by the reduction in future discretionary bonuses (note that on block of business C this is not possible because it is non-participating business).

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>(Sum)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net charges - after adjustment for loss absorbency of TP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>upward shock</td>
<td>50</td>
<td>-67</td>
<td>-400</td>
<td>-417</td>
</tr>
<tr>
<td>downward shock</td>
<td>-53</td>
<td>40</td>
<td>500</td>
<td>487</td>
</tr>
</tbody>
</table>

B.1.8. Based on these results, the upward shock scenario is chosen to compute the SCR, as it corresponds to the worst scenario at the level of the undertaking. In summary, the gross and net capital charges for interest rate risk are respectively 450 and 417 (step d)). Note that ignoring step b) would lead to much lower capital charges – respectively 250 and 217.

B.1.9. The calculation would then progress in an analogous manner for the remaining individual risks within the market risk module and, after that, for the individual risks within the other risk modules. Assume the interest rate risk is the only risk in the market module and there is one further individual risk, mortality risk. The table below shows the breakdown of the SCR into the different components.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interest rate risk shock</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>only revaluation of A&amp;L</td>
<td>-250</td>
<td>67</td>
<td>400</td>
<td>217</td>
</tr>
<tr>
<td>after additional distribution of profit sharing</td>
<td>-50</td>
<td>67</td>
<td>400</td>
<td>417</td>
</tr>
<tr>
<td><strong>Mortality risk shock</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>125</td>
<td>200</td>
<td>335</td>
</tr>
<tr>
<td><strong>Calculation of SCR</strong></td>
<td>10</td>
<td>169</td>
<td>529</td>
<td>653</td>
</tr>
</tbody>
</table>

B.1.10. Note: A correlation of 50% between Interest rate risk and Mortality risk is assumed, for the purposes of this example.
B.2. Calculation of total eligible own funds in the presence of ring-fenced funds

Case 1: Ring fenced fund in surplus after deducting notional SCR

B.2.1. Where there are sufficient own funds within each ring-fenced fund to cover the respective notional SCR, the own funds in excess of the notional SCR should be excluded.

If this is the case any amount representing the value of future shareholder transfers – see paragraph 3.27 above – is not restricted and therefore forms part of the own funds available to meet the SCR for the undertaking as a whole – see RFF B below.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Own funds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCR</td>
<td>200</td>
<td>400</td>
<td>1400</td>
<td>2000</td>
</tr>
<tr>
<td>Case of RFF with restricted own funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCR</td>
<td>10</td>
<td>169</td>
<td>529</td>
<td>653</td>
</tr>
<tr>
<td>Shareholder value in RFF</td>
<td>0</td>
<td>30</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>OF available to cover SCR</td>
<td>10</td>
<td>199</td>
<td>1400</td>
<td>1609</td>
</tr>
<tr>
<td>OF unavailable to cover SCR</td>
<td>190</td>
<td>201</td>
<td>0</td>
<td>391</td>
</tr>
<tr>
<td>Case of RFF without restricted own funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCR</td>
<td></td>
<td></td>
<td></td>
<td>653</td>
</tr>
<tr>
<td>OF available to cover SCR</td>
<td>200</td>
<td>400</td>
<td>1400</td>
<td>2000</td>
</tr>
<tr>
<td>OF unavailable to cover SCR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Case 2: Ring fenced fund in deficit after deducting notional SCR

B.2.2. Where there are insufficient own funds within a ring-fenced fund to cover the notional SCR for that ring-fenced fund (fund B in this example):

a) There is no restriction on the amount of own funds in that ring fenced fund;

b) The deficit in that ring fenced fund is met by own funds outside the ring fencing arrangements, i.e. arising in non-participating business C in this example.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Own funds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCR</td>
<td>200</td>
<td>150</td>
<td>1400</td>
<td>1750</td>
</tr>
<tr>
<td>Case of RFF with restricted own funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCR</td>
<td>10</td>
<td>169</td>
<td>529</td>
<td>653</td>
</tr>
<tr>
<td>OF available to cover SCR</td>
<td>10</td>
<td>150</td>
<td>1400</td>
<td>1560</td>
</tr>
<tr>
<td>OF unavailable to cover SCR</td>
<td>190</td>
<td>0</td>
<td>0</td>
<td>190</td>
</tr>
<tr>
<td>Case of RFF without restricted own funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCR</td>
<td></td>
<td></td>
<td></td>
<td>653</td>
</tr>
<tr>
<td>OF available to cover SCR</td>
<td>200</td>
<td>150</td>
<td>1400</td>
<td>1750</td>
</tr>
<tr>
<td>OF unavailable to cover SCR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>