



**ISLE OF MAN
FINANCIAL SERVICES AUTHORITY**

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**THE ASSESSMENT OF CAPITAL
ADEQUACY FOR NON-LIFE INSURANCE
AND LAUNCH OF QIS4 EXERCISE**

CONSULTATION PAPER

CP17-08/T09

28 July 2017

This Consultation Paper is issued by the Isle of Man Financial Services Authority (“the FSA”), the regulatory authority responsible for the supervision of the financial services, insurance and pensions sectors in the Isle of Man.

What is it for?

This paper sets out the FSA’s current thinking in respect of the assessment of the capital adequacy of insurers and reinsurers undertaking non-life insurance business, including the valuation of the assets and liabilities for solvency purposes. Together with the accompanying Technical Specifications it sets out the approach which we require the Isle of Man’s non-life insurers and reinsurers to test in our fourth Quantitative Impact Study (QIS4) (the third QIS exercise to apply to non-life insurers and reinsurers) launched today. We will use the responses to this consultation paper and the results of the QIS to further develop our thinking on the capital adequacy regime. Further consultations and QIS exercises will therefore be run as we make more concrete proposals.

Who is affected by it?

This document will be of direct interest to all existing and prospective insurance companies undertaking non-life insurance business in or from the Isle of Man. In particular, it will be of interest to those with functional responsibility and oversight of the finance, actuarial and risk management functions within those companies. The accompanying draft Technical Specifications will be of interest to those with technical expertise in, and responsibility for, modelling, calculating, and reviewing and/or using the calculation of technical provisions, capital resources and risk-based capital requirements.

Other parties with an interest in the Isle of Man non-life sector may also find this discussion paper and the issues raised of interest.

What consultation feedback is required?

We request all Isle of Man non-life insurers, reinsurers and any other interested parties to provide feedback on all areas of the consultation paper by 31 October 2017, in particular:

- Comments on the suitability of the approach, for Isle of Man non-life insurers and reinsurers;*
- Comments on the suitability of the wording and terminology used, for Isle of Man non-life insurers and reinsurers;*
- If felt appropriate, suggestions on how the approach, wording or terminology proposed might be further adapted for the Isle of Man, with justification.*

Feedback is also requested on the technical specifications.

Issue date

28 July 2017

Closing dates for responses

31 October 2017

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1. Introduction

- 1.1. This paper sets out the FSA's current thinking in respect of the assessment of the capital adequacy of an insurer or reinsurer undertaking non-life insurance business ("insurer"), including the valuation of the assets and liabilities for solvency purposes. It is accompanied by the publication of the FSA's Technical Specifications detailing possible approaches to the valuation of non-life insurance assets and liabilities and the assessment of capital adequacy of non-life insurers using a "standard formula" approach.
- 1.2. The Technical Specifications form the basis of our latest Quantitative Impact Study ("QIS4"), launched today. QIS4 is the third QIS exercise to apply to non-life insurers, and requires all non-life insurers to produce, on a best efforts basis, balance sheets and capital requirements using an approach reflecting our initial proposals for the framework for valuation and capital adequacy for the new regulatory regime. The QIS4 exercise builds on the approach proposed for the QIS3 exercise, taking into account industry feedback from that exercise.
- 1.3. The Technical Specifications detail possible approaches to the valuation of assets and liabilities and the assessment of solvency of non-life insurers and reinsurers using a "standard formula" approach. The technical specifications are, by their nature, relatively complex documents and we would anticipate that their main audience will be technical staff such as accountants, risk specialists and actuaries within insurers or reinsurers. It should be noted however that we have striven to significantly simplify and clarify the specifications compared with EIOPA's Solvency II specification, and have further simplified the approach following feedback from the QIS2 and QIS3 exercises. We welcome comments on where further simplifications might be made as part of the QIS4 consultation.
- 1.4. Consistent with our stated objective, the content of this document has been derived from relevant ICPs, particularly ICP14 and ICP17. As a result and where relevant, reference is made in this document to applicable sections of the ICPs. In considering the requirements of the international standards, the FSA has sought to adapt these, as appropriate, to recognise the particular characteristics of the Isle of Man non-life sector.
- 1.5. We expect to further adapt the Technical Specifications based on feedback from the current consultation and the results of the QIS4 exercise, to more closely reflect the nature and risks of the sector in a proportionate manner.
- 1.6. We are keen to hear from respondents whether there are any further areas in which the content, terminology or wording of the Consultation Paper and Technical Specifications might helpfully be further adapted to reflect the characteristics of the Island's non-life insurance sector.
- 1.7. Further consultation and QIS exercises will therefore be run as we develop more concrete proposals.

- 1.8. The approach we are proposing to test in QIS4 complies with the requirements of ICP14 and ICP17. It is based on EIOPA's most recent technical specification for Solvency II as this is the most recent international specification compliant with ICP14 and ICP17. However we have significantly simplified the Solvency II approach in line with our objective to achieve an approach which is appropriate and proportionate to the risks of the Isle of Man's non-life insurance sector. We have also had regard to the approaches used in other jurisdictions, notably Guernsey, Bermuda and Switzerland, in particular in respect of the calibration of capital requirements where there are no unrelated ultimate beneficiaries.
- 1.9. In the solvency balance sheet, assets will remain largely valued at market value. Technical provisions will ultimately be the sum of a "best estimate provision" and a "risk margin" which reflects the inherent uncertainty in the liabilities. However in the short term we will allow the use of technical provisions calculated on other bases (for example the basis currently used for accounting purposes) if it is not practicable to immediately calculate provisions on the best estimate plus risk margin approach.
- 1.10. Solvency capital requirements under the standard model approach will be set by stressing the solvency balance sheet using shock scenarios for each main type of risk to which insurers and reinsurers are exposed. The results of these shock scenarios are aggregated to give the overall solvency capital requirement. This capital requirement is calibrated at various different confidence levels for the QIS4 exercise, to give a 90% (1 in 10 year), 98% (1 in 50 year), 99% (1 in 100 year) or 99.5% (1 in 200 year) confidence level that assets will exceed technical provisions at the end of one year. We will contact all insurers and reinsurers to determine which of these confidence levels will apply to them for the QIS4 exercise.
- 1.11. Some aspects of the capital adequacy regime will not be tested in QIS4, but will be tested at a later stage. These include:
 - The use of internal models (as only the standard formula approach is tested in a QIS);
 - Capital adequacy for groups rather than solo entities.

2. Underlying methodologies for valuation, capital adequacy and capital resources

2.1. Valuation

- 2.1.1. Our proposed approaches to recognising and valuing assets and liabilities, including technical provisions, were set out in section 3 of our consultation paper CP16-04 which was issued at the launch of our QIS3 exercise. These were based on the requirements of the relevant ICPs. There are no material changes from these in the QIS4 exercise. Full details are set out in the accompanying Technical Specifications.
- 2.1.2. As for QIS4, while it is the FSA's intention to ultimately reach the point at which all insurers and reinsurers calculate technical provisions as the sum of a best estimate provision and a risk margin (as described in the remainder of this section), we recognise that for non-life insurers this may be a significant change from the current approach used for accounting and regulatory purposes.
- 2.1.3. Over the coming years changes to accounting methodologies driven by IFRS 17 are likely to require changes to the approach used for calculating technical provisions for accounting purposes, towards the approach which will be required by our new framework.
- 2.1.4. We are therefore proposing, as for QIS3, that non-life insurers may use accounting provisions in the QIS4 exercise, and potentially in the early years of the introduction of our new regime, while they work towards adapting their methodology to comply with both IFRS 17 requirements and the requirements of our regulatory regime. If insurers wish to adopt this approach they should satisfy themselves that the accounting provisions are likely to be no lower than the provisions calculated on a best estimate plus risk margin approach.
- 2.1.5. If insurers do wish to complete QIS4 on the basis of the proposed best estimate provision plus risk margin approach, details of the required approach are set out in sections 3.8 to 3.13 of CP16-04 and in the Technical Specifications for QIS4. These details also include various approximate approaches which will be acceptable at least in early submissions while more detailed approaches are implemented.

2.2. Capital adequacy

- 2.2.1. Our proposed approaches to setting capital requirements and solvency control levels were set out in section 4 of CP16-04. These were based on the requirements of the relevant ICPs. The main material changes from these in the QIS4 exercise are that we are testing four different confidence levels in QIS4 rather than the two tested in QIS3 (see 3.1 below), and a possible revised approach to the treatment of loans to related companies (see 3.2 below). Full details are set out in the accompanying Technical Specifications.

2.3. Capital resources

- 2.3.1. Our proposed approaches to determining the capital resources eligible to meet capital requirements were set out in section 5 of CP16-04. These were based on the requirements of the relevant ICPs. There are no material changes from these in the QIS4 exercise. Full details are set out in the accompanying Technical Specifications.

3. Changes to approach in QIS4 from QIS3

3.1. Confidence levels

- 3.1.1. As discussed with industry following the QIS3 exercise, in QIS4 we will be testing four confidence levels for the calibration of the SCR – 90% (1 in 10 year), 98% (1 in 50), 99% (1 in 100), and 99.5% (1 in 200). We will advise each insurer of which confidence level(s) it should use in the QIS4 exercise. These will depend on the extent to which the ultimate beneficiaries in the event of claims are parties related to it.
- 3.1.2. For the 1 in 10 year confidence level, in QIS4 we have removed the catastrophe risk shock scenarios on the grounds that catastrophe risk shocks are not expected on a 1 in 10 year basis. Insurers who are required to establish their SCR on a 1 in 10 year basis in the final regulatory regime will still be required to consider catastrophe risk in their Own Risk and Solvency Assessment (ORSA)¹, at a suitable confidence level.
- 3.1.3. We will use the results of QIS4 to refine the design of the SCR calculation for the QIS5 exercise, which may result in the number of different confidence levels reducing. In the final regime we expect that each company will calculate its SCR on only one confidence level.

3.2. Treatment of loans to group companies

- 3.2.1. In the QIS3 exercise, loans to group companies were included in the spread risk shock scenario at the 1 in 200 year confidence level, and did not generate capital requirements at the 1 in 10 year confidence level.
- 3.2.2. For the QIS4 exercise, loans to group companies are no longer included in the spread risk shock scenario, but are included in the default risk shock scenario for all confidence levels, including the 1 in 10 confidence level.
- 3.2.3. We will use the results of QIS4 to refine the design of the treatment of group loans in the SCR calculation for the QIS5 exercise.

¹ ORSA requirements will be set out in a separate consultation on enhancements being made to the Corporate Governance Code for Regulated Insurance Entities, timetabled for August 2017.

3.3. Recalibration of premium and reserve risk for 1 in 10

- 3.3.1. For the 1 in 10 year confidence level we have recalibrated the factor applied to the derived standard deviation for premium and reserve risk to obtain the capital requirement for these risks. In QIS3 this was based on an assumed Normal distribution of the underlying risk, resulting in a factor of 1.5 times the standard deviation. For QIS4 the underlying distribution is assumed to be lognormal, resulting in a factor of 1.3 times the standard deviation.

3.4. Stop-loss overlay for non-life underwriting and health underwriting risk

- 3.4.1. In the QIS4 results templates we have added functionality to enable stop-loss reinsurance arrangements applying at the company level to be reflected by reducing the SCR for non-life underwriting and health underwriting risks.

4. Possible alternative approaches to be tested in QIS4

4.1. Use of net premiums in Premium Risk module

- 4.1.1. The premium risk module in QIS3 and QIS4 is based on the application of risk factors to measures of the earned premiums net of reinsurance but gross of commission and expected profits. (TS 2.8.4.6-2.8.4.8)
- 4.1.2. In their feedback on QIS3 some insurers commented that due to the nature of their business, the part of the premium which is related to insurance risk is materially lower than would normally be expected, and that the use of earned premiums gross of commission and expected profits is therefore likely to overstate premium risk.
- 4.1.3. For QIS4 we request insurers who consider that the use of earned premiums gross of commission and expected profits is liable to materially overstate premium risk to submit two results templates as follows:
- 4.1.3.1. Using earned premium volume measures as per TS 2.8.4.6-2.8.4.8 i.e. gross of commission and expected profits.
 - 4.1.3.2. Using earned premium volume measures net of commission and expected profits. Expected profits should be calculated on a best estimate basis.
- 4.1.4. Such insurers should also provide a detailed description of the contracts in question, and justify the assumed commission and expected profit components of earned premiums.

4.2. Treatment of unrated Isle of Man bank subsidiaries of UK parents

- 4.2.1. The counterparty default risk module applies risk factors to unrated counterparties which are materially higher than those applied to rated counterparties. In the QIS3

exercise some insurers had exposure to unrated banks on the Isle of Man which are subsidiaries of rated parent banks or banking groups in the UK.

- 4.2.2. In order to assess the impact on insurers' solvency of such exposures we request insurers with exposure to unrated Isle of Man banks with rated UK parents to complete the QIS4 exercise according to the technical specifications, treating such bank counterparties as unrated, but to also provide details in the qualitative questionnaire of the Isle of Man bank counterparty, the group to which it belongs, and the rating of its parent entity.

5. Additional guidance for QIS4

5.1. After-the-event insurance and other deferred premium arrangements

- 5.1.1. Some insurers write contracts which provide after-the-event insurance cover or have similar deferred premium arrangements.
- 5.1.2. For such contracts, premiums which have not yet been received under the contract should be reflected as part of the best estimate provision ("BEP") component of the technical provisions, as a future cashflow receivable under the policy, reducing the BEP. They should not be included as a debtor item on the balance sheet.
- 5.1.3. The calculation of the results of the lapse risk module should apply the 40% lapse shock to these policies. This will result in 40% of the future premium receivables in the BEP being assumed not to be received in the lapse stress scenario.
- 5.1.4. The earned premium volume measures in the premium risk module should be calculated consistently with the premium receipts in the BEP calculation.
- 5.1.5. Where premiums include a material element of commission or expected profit, the comments in 4.1 above apply.
- 5.1.6. Once we have received results on this basis in QIS4 we will consider whether applying the lapse stress of 40% is an appropriate allowance for risk, or whether premium receipts should be subject to another stress scenario, such as counterparty default.

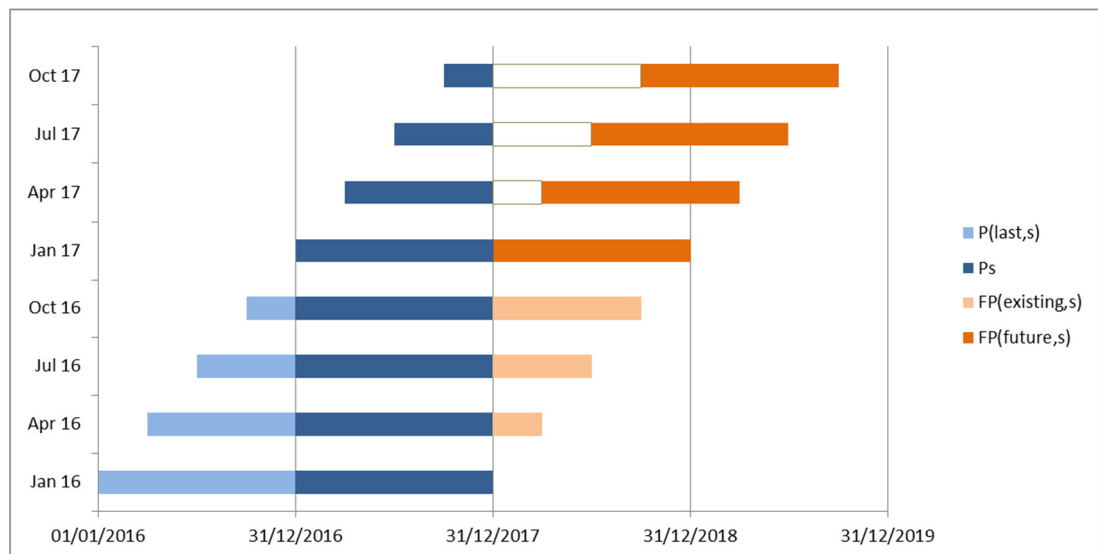
5.2. Multi-year contracts

- 5.2.1. Some insurers write business under which the policy is of longer duration than one year. Such insurers should take care to include the correct volume measures of earned premium in the premium and reserve risk module. In particular, the calculation of the premium volume measure (see TS 2.8.4.6) for such companies must consider not only $P_{(last,s)}$, which represents the premium earned during the 12 months prior to 31 December 2016, and P_s , which represents the earned premium expected by the insurer during the 12 months following 31 December 2016, but also the two following elements:

5.2.1.1. $FP_{(existing,s)}$ (as defined in TS 2.8.4.6, and entered in column K in tab “Premium and Reserve Risk” of the results template), which represents the premiums to be earned after the following 12 months for existing contracts (i.e. for QIS4, this is premiums to be earned after 31 December 2017 in respect of contracts in force at 31 December 2016)

5.2.1.2. $FP_{(future,s)}$ (as defined in TS2.8.4.6, and entered in column M in tab “Premium and Reserve Risk” of the results template), which represents the expected premiums to be earned after the first 12 months of the contract on all contracts expected to be written in the 12 months after the valuation date (i.e. for QIS4 this is premiums expected to be earned on new contracts incepting in the 12 months following 31 December 2016, but excluding premiums expected to be earned in the first 12 months of those contracts).

5.2.2. The graphic below illustrates the four premium volume components (as set out in TS 2.8.4.6) for a valuation date of 31st December 2016, for a series of eight policies, all covering a two year period, one issued on the 1st day of each of January, April, July and October 2016 and one expected to be issued on each of the same dates in 2017. Premiums to be earned in the periods represented by the white sections of the bars do not form part of the premium volume measure.



5.3. Ring-fenced funds

5.3.1. Insurers’ attention is drawn to Section 2.10 of the Technical Specification, on ring-fenced funds. Ring-fenced funds arise when assets (own funds) of the insurer are restricted so that they can only be used to cover losses on a defined portion of the insurer’s insurance contracts, in respect of certain policyholder or beneficiaries, or arising from particular risks (TS 2.10.3.1).

5.3.2. Several insurers identified ring-fenced fund arrangements in QIS3, most commonly in respect of arrangements for letters of credit, escrow, deposits with ceding companies, protected cell arrangements etc. However many did not, and we

request all insurers to verify whether or not ring-fenced fund arrangements apply to them (see in particular TS 2.10.3 and 2.10.10).

- 5.3.3. Where a ring-fenced fund arrangement is material, TS 2.10.4-2.10.9 set out how the assets and liabilities associated with the ring-fenced fund are identified, the calculation of the notional SCR for each ring-fenced fund and the remaining part of the insurer, the subsequent calculation of the SCR for the insurer as a whole, and adjustments which are made to the insurer's own funds in respect of ring-fenced funds.
- 5.3.4. Where assets are retained by a fronting insurer to pay claims on their contracts, and this arrangement meets the definition of a RFF, the calculation of the counterparty default risk charge in the SCR for the RFF should not include exposure to the fronting insurer relating to the assets retained by it.
- 5.3.5. Where there are material ring-fenced funds arrangements, insurers are required to submit a separate QIS4 results return (template and helper tabs) for each ring-fenced fund and for the remaining non-ring-fenced assets and liabilities. We are providing a further helper workbook in which insurers should enter the SCR and own fund components for each ring-fenced fund and the remainder of the business, and which calculates the overall SCR, own funds and solvency coverage. Insurers should also provide details of the nature of each ring-fenced fund.

6. QIS4 Exercise

- 6.1.1. We are launching, today, our QIS4 exercise in which we require all Isle of Man non-life insurers to calculate their technical provisions, capital requirements and capital resources as at 31 December 2016 using the approach specified in technical specifications TS17-08(10), which sets out the approaches to be tested for calculating risk-based capital at a 1 in 10 year level, and TS17-08(200) which sets these out for 1 in 50, 1 in 100 and 1 in 200 year levels.
- 6.1.2. Insurers should, where possible, use their in-force data and accounting records as at 31 December 2016 as the basis for completion of QIS4, amended as necessary to comply with the requirements of TS17-08(10) and TS17-08(200).
- 6.1.3. We are publishing, today, on our website templates to be populated by respondents with the results of their calculations. A questionnaire for completion will be added shortly.
- 6.1.4. The results templates include instructions to aid the completion of the exercise, and we are also publishing separate instructions documents for completion of the 1 in 10 and 1 in 50/100/200 templates and helper workbooks. However the full details of requirements is included in the Technical Specifications and those completing the exercise should refer to the Technical Specifications as required (the relevant sections are indicated in the results templates and instructions documents). Any questions regarding the interpretation of TS17-08(10) and TS17-08(200) and the completion of the results templates should be addressed to us as per 6.1.9 below.
- 6.1.5. We are also publishing a number of “helper workbooks” which may assist insurers in determining certain components of the balance sheet and capital requirements:
- Interest rate risk stress impact on assets and technical provisions
 - Spread risk stress impact (for 1 in 50/100/200)
 - Counterparty default risk capital requirement
 - Concentration risk capital requirement
 - A workbook to consolidate the results for ring-fenced funds, where applicable (see section 5.3 above).
- 6.1.6. The use of these helper workbooks is not compulsory.
- 6.1.7. The deadline for return of the completed templates and questionnaire is 31 October 2017. The three month window for completion of QIS4 is intended to enable companies to complete the exercise without significantly disrupting other activity. If the QIS4 calculations are completed before the end of the three month period then we request companies to return them and not wait for the deadline.
- 6.1.8. We will use the results of the QIS4 exercise as input to our further consideration of the proposed valuation and capital adequacy regime. Further consultation and QIS exercises will therefore be run as we develop more concrete proposals. We request companies to complete the QIS4 exercise on a “best efforts basis”. By this we mean

that companies should carry out the calculations specified in TS17-08(10) and TS17-08(200) as accurately as is feasible at this stage. TS17-08(10) and TS17-08(200) set out a range of possible approaches to some calculations, e.g. the determination of technical provisions, and companies should aim to use the most appropriate approach given the guidance on proportionality set out in the specifications. If such an approach is not possible for technical, data, or other reasons, companies may adopt a more approximate approach (from those set out in TS17-08(10) and TS17-08(200)) for QIS4 provided that they provide details of why the more approximate approach was required and the possible scale of the impact on results.

- 6.1.9. The FSA is keen to engage with industry interactively through the QIS4 process. We will publish a regular list of questions raised by industry (where these are also relevant to companies other than the one raising the question) through the process, together with our responses. All questions and comments should be directed in the first instance to:

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Isle of Man Financial Services Authority
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Bucks Road
Douglas
Isle of Man
IM99 1DT

01624 646016
richard.karuma@iomfsa.im

7. Consultation feedback

- 7.1.1. In addition to completion of the QIS4 exercise described in Section 6, we request all Isle of Man non-life insurers, reinsurers and any other interested parties to provide feedback on all areas of the consultation paper, in particular:
- Comments on the suitability of the approach, for Isle of Man non-life insurers and reinsurers
 - Comments on the suitability of the wording and terminology used, for Isle of Man non-life insurers and reinsurers
 - If felt appropriate, suggestions on how the approach, wording or terminology proposed might be further adapted for the Isle of Man, with justification
- 7.1.2. We also request all Isle of Man non-life insurers, reinsurers and any other interested parties to provide feedback on all areas of the proposed technical specifications, in particular:
- Comments on the suitability of the specifications for Isle of Man non-life insurers and reinsurers
 - Comments on whether the wording and terminology used is suitable for Isle of Man non-life insurers and reinsurers
 - If felt appropriate, suggestions on how the approach, wording or terminology proposed might be further adapted for the Isle of Man, with justification
- 7.1.3. **Responses to this consultation paper and technical specifications should be provided by email or letter to Richard Karuma, Isle Of Man Financial Services Authority, PO Box 58, Finch Hill House, Bucks Road, Douglas, IM99 1DT / richard.karuma@iomfsa.im by 31 October 2017.**