



IAIS

INTERNATIONAL ASSOCIATION OF
INSURANCE SUPERVISORS

Public

ICS Consultation Document - Responses to Comments on Market Risks (Section 9.2.3)

9 March 2016



About this slide deck

1. This is the next tranche of resolutions of ICS Consultation Document (ICS CD) responses and comments received from IAIS Members and Stakeholders.
2. Member comments are grouped, noting that:
 - i. Members who provided confidential responses are not explicitly identified, but the total number of responses received is reported; and
 - ii. it is the policy of some Members to not comment on public consultations.
3. Stakeholder comments are presented on a thematic basis.

Glossary of Member Acronyms/ Shortened Names

AMF	Autorité des Marchés Financiers, Quebec, Canada
BaFin	Federal Financial Supervisory Authority, Germany
BMA	Bermuda Monetary Authority
CIRC	China Insurance Regulatory Commission
EIOPA	European Insurance and Occupational Pensions Authority
Hong Kong	Office of the Commissioner of Insurance
MAS	Monetary Authority of Singapore
NAIC	National Association of Insurance Commissioners, United States
OSFI	Office of the Superintendent of Financial Institutions, Canada
Russia	Central Bank of the Russian Federation
UK PRA	Prudential Regulation Authority, Bank of England

9.2.3.1 Interest rate risk - Q 111

Question 111. Are the approaches outlined above appropriate for the calculation of the interest rate risk charge? Should any other approaches be considered, and if so, what are they and why?

OSFI and one other Member agree that the approaches to interest rate risk outlined in Section 9.2.3.1 are appropriate.

BAFIN, EIOPA, MAS and five other Members stated that only the more sophisticated prescribed stress methodology proposed by the IAIS can appropriately capture interest rate risk and a factor-based approach based on durations would not be appropriate.

AMF stated that the approach under development in Canada should be considered. This is described as shock applied to market interest rates and also a shock prescribed for durations longer than the longest liquid interest rate duration. The capital requirement is the difference between the NPV of the cash flows before the shock and NPV of cash flows after the shock.

9.2.3.1 Interest rate risk

Question 112. What should be the form of the prescribed interest rate shocks, and in particular how should the shocks relate to the existing term structure? Are there any other scenarios besides upwards and downwards shocks at all terms that should be included in the set of prescribed scenarios?

AMF, BaFin, EIOPA, MAS, OSFI and five other Members stated an upward and downward shock should be sufficient.

BaFin, EIOPA, MAS and five other Members prefer prescribed interest rate shocks to be percentage shocks varying across the term structure and that there should be absolute minimum thresholds (MAS suggested caps on the shocks) on the shocks given the current low interest rate environment.

OSFI and AMF suggested that a function of the square root of the current rate should be used rather than a percentage shock (OSFI quoted the Cox-Ingersoll-Ross method).

There were a range of responses from stakeholders, some themes that can be drawn out are:

- A significant number of stakeholders indicated that only upward and downward shocks were needed
- Some individual companies suggested parallel movements in yield curves would be sufficient shocks but others indicated that flattening and steepening stresses should be included
- Some trade associations noted a preference for interest rate risk to be measured using an internal model

9.2.3.1 Interest rate risk

Question 113. Under the second approach, should the IAIS consider different shock magnitudes for each duration bucket, or even a flat or inverted yield curve scenario?

AMF, EIOPA, OSFI, and six other Members stated that absolute shock figures are not expected to be at the same level for different durations.

MAS stated that the shock magnitudes at each duration depend on the outcome of calibration.

Except for those stakeholders who support a parallel shift in the yield curve as the prescribed stress, others believe that the shock magnitudes should vary with the expectation that shocks at short durations should be higher in magnitude than at longer durations.

9.2.3.1 Interest rate risk

Questions 114. Should the IAIS consider an immediate shock or a shock over a period of time, or both?

AMF, BaFin, EIOPA, MAS, OSFI and six other Members all agreed that for a standardised approach, it is most appropriate to use an immediate shock.

Most stakeholders support the application of an immediate shock; some qualified this as being appropriate with a 1-year time horizon.

A small minority of stakeholders indicated that a shock over time may be more appropriate particularly in the context of long-term business.

Several stakeholders mentioned that both immediate and shocks over a period of time are useful and provide different perspectives.

9.2.3.1 Interest rate risk

Question 115. Should the IAIS consider inclusion of interest rate volatility shocks in addition to the term structure shocks?

AMF, BaFin, EIOPA and five other Members did not rule out the need for the inclusion of volatility shocks depending on the evidence gathered in field testing. However, it was noted that cost and complexity should be balanced against the additional risk sensitivity derived from the inclusion of volatility shocks.

MAS stated that inclusion of volatility shocks would be too complex for a standard method.

OSFI and one other Member thought that volatility shocks should be considered as interest rate volatility is an important variable in the valuation of interest rate guarantees and options in some products.

Most stakeholders agreed with the application of an interest rate volatility shock. Some indicated that there should be a simplified approach where the risk from interest rate volatility is not likely to be high and a more sophisticated approach where interest rate volatility is likely to be material (e.g. significant optionality in benefits).

A minority of stakeholders preferred that interest rate volatility was not included in the ICS or at least not in the initial version with some indicating that the complexity involved outweighs the benefits.

Response to questions 111 to 115

IAIS Response: For 2015 field testing, the IAIS tested an upward stress, a downward stress and a flattening stress. It was found that different stresses were important for different volunteers. There were some issues noted by volunteers with the calibration of these stresses and as such the IAIS will continue investigating these issues in 2016 field testing. The IAIS will consider testing all three scenarios again, including continuing to explore the way to produce a reasonable and justifiable flattening scenario for 2016 field testing.

For 2016 Field Testing, calibration is being revised, including the methodology used.

For 2015 Field Testing and 2016 Field Testing, the applied shock is to be on an instantaneous shock basis rather than one over time.

Neither 2015 Field Testing or 2016 Field Testing will include interest rate volatility shocks. However, the IAIS may consider introducing a volatility shock as part of the standard method in further developments between ICS Version 1.0 and ICS Version 2.0.

9.2.3.2 Equity Risk

Question 117. Is it appropriate for the equity risk to include a stress on volatilities? For IAIGs, is the impact of a stress on volatilities likely to be material when compared to the impact of a stress on equity prices?

EIOPA and six other Members responded ‘yes’. Most Member respondents highlighted the materiality of the impact of a stress on volatilities could be significant for IAIGs - depending on investment portfolios, equity derivative holdings, and equity-linked options and guarantees within insurance liabilities – and that field testing could be used to assess the materiality of such stresses and inform decision-making.

MAS noted including volatility shocks would be too complicated as it would require use of complex derivative pricing models.

BaFin suggested excluding this risk from the standard method for practical reasons.

AMF noted that it could have an important impact on some products, but that a simple approach may not assess this impact correctly.

OSFI indicated that a full stress approach would be too complicated for a standard approach, and therefore is supportive of a shock approach.

9.2.3.2 Equity Risk

Question 117. Is it appropriate for the equity risk to include a stress on volatilities? For IAIGs, is the impact of a stress on volatilities likely to be material when compared to the impact of a stress on equity prices?

Most stakeholders supported the inclusion of a stress on volatilities, noting it would be material in many cases, and some suggested credit be given for the effectiveness of dynamic hedging programs.

For the stakeholders that did not support it, reasons included: the equity risk charge should reflect long-term economic loss potential and not overweight short-term volatility, difficulty in applying it in a consistent way, and immateriality (particularly for companies focused on non-life business).

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach that included a stress on volatilities. The IAIS plans to continue field testing a stress on volatilities in 2016.

9.2.3.2 Equity Risk

Question 118. Would implementation of a volatility stress result in a significantly increased implementation complexity? In particular, would such a stress result in the necessity to set up IT tools not required otherwise, or a significantly increased time calculation when computing the effects of stress scenarios? Please provide any quantitative or qualitative detail if possible.

BaFin, EIOPA, and four other Members responded ‘yes’. Most of these Members highlighted that field testing could be used to assess materiality of the risk and gather feedback on the practical aspects of the issues raised.

OSFI indicated that insurers should undertake steps to be able to quantify the effect of a volatility stress if they are not already capable of doing so.

9.2.3.2 Equity Risk

Question 118. Would implementation of a volatility stress result in a significantly increased implementation complexity? In particular, would such a stress result in the necessity to set up IT tools not required otherwise, or a significantly increased time calculation when computing the effects of stress scenarios? Please provide any quantitative or qualitative detail if possible.

Most stakeholders suggested the volatility stress would significantly increase implementation complexity, and this was the prevalent view amongst companies focussed on non-life business.

Some stakeholders indicated there would no or limited increase in implementation complexity, noting that IAIGs which write significant amounts of business with equity optionality would already have measurement systems in place.

One stakeholder indicated it would be relatively simple for anyone currently reporting Market Consistent Economic Value.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach which included a stress on volatilities. The IAIS plans to continue field testing a stress on volatilities in 2016.

9.2.3.2 Equity Risk

Question 119. Is segmentation based on 5 buckets appropriate? Should the number of buckets be increased, or reduced? Why?

Question 120. Are the proposed buckets fit for purpose? If not, what could be an alternative?

BaFin, EIOPA, MAS and five other Members indicated the proposed 5 buckets was a good starting point for field testing, and refinements can be based on information collected.

OSFI and one other Member indicated their support for the proposed buckets.

AMF did not think the segmentation based on 5 buckets was appropriate as they don't expect results would be much difference under a major stress situation as the correlation would be very high.

9.2.3.2 Equity Risk

Question 119. Is segmentation based on 5 buckets appropriate? Should the number of buckets be increased, or reduced? Why?

Question 120. Are the proposed buckets fit for purpose? If not, what could be an alternative?

Stakeholders were about equally split on these questions.

About half the stakeholders indicated the number of buckets seemed appropriate, but many also made suggestions such as to add a bucket for investments in infrastructure.

The concerns of the remaining stakeholders included: more granular buckets needed (for Asia), commodities should be modelled separately, infrastructure should be included under real estate, separate bucket for strategic participations, lack of clarify on which jurisdictions are considered to be 'developed markets', and allowing fewer buckets if non-significant impact on outcomes.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach based upon a 4 bucket segmentation. The segmentation was: (1) listed equity in developed markets; (2) listed equity in emerging markets; (3) preference shares/hybrid debt; and (4) other equity. The IAIS plans to continue field testing this 4 bucket segmentation in 2016.

9.2.3.2 Equity Risk

Question 121. Is it appropriate to apply all stresses simultaneously across all equity classes or would it be more appropriate to use a correlation matrix?

BaFin, EIOPA and four other Members indicated it may be appropriate to allow for some diversification among the buckets, which could be achieved through the use of a correlation matrix.

OSFI highlighted that, due to the specific risk associated with individual stocks, it would be most appropriate to aggregate, using simple summation, the results of applying the most adverse of the four scenarios on a stock-by-stock basis.

MAS answered that it would be more appropriate to determine the stress scenario that produces the maximum loss for each of an IAIG's equity positions rather than apply the same directional shock to all equities at a given time as this would better reflect the specific nature of equity holdings and avoid a hypothetical situation whereby a short position in any stock is allowed to fully offset a long position in another stock under say a price down scenario – which would be incorrect unless it is shown that both stocks have a correlation close to 1.

9.2.3.2 Equity Risk

Question 121. Is it appropriate to apply all stresses simultaneously across all equity classes or would it be more appropriate to use a correlation matrix?

The great majority of stakeholders supported the use of a correlation matrix, with many highlighting the diversification benefits.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach that applied stresses simultaneously across all equity classes. The IAIS plans to continue with this approach for 2016 field testing.

9.2.3.2 Equity Risk

Question 122. With regard to hybrid debt and preference shares, amongst the 3 proposed alternatives, which is more appropriate? Why? Is there any other alternative that should also be considered?

EIOPA and three other Members responded that the proposed alternative 3 was the most appropriate as it better takes into account the risks to which the instruments are exposed rather than their legal or accounting classification.

BaFin and one other Member indicated that alternative 3 seemed to be the most appropriate, as it is based on economic characteristics, but also suggested that the unbundling of hybrid instruments into debt and equity components be considered.

MAS noted the practicality of alternative 2, but indicated that alternative 3 would be most appropriate as the nature of preference shares will depend on the specific characteristic and contractual conditions of that security.

AMF indicated that alternative 1 and 2 would be more appropriate under a standardized approach. OSFI also indicated that alternatives 1 and 2 were the most appropriate, and that alternative 3 would be less appropriate because it would introduce a measure of subjectivity and individual judgement on a case-by-case basis that is better to avoid under a standardized approach.

9.2.3.2 Equity Risk

Question 122. With regard to hybrid debt and preference shares, amongst the 3 proposed alternatives, which is more appropriate? Why? Is there any other alternative that should also be considered?

About half the stakeholders supported alternative 3, with many highlighting its practicality.

The comments of the remaining stakeholders included: alternative 3 is too complex, alternative 2 is more practical, model preference shares as equity given relative immateriality, and incorporate an IAIG's risk management practice.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach that included a bucket for hybrid debt and preference shares, similar to alternative 2 in the consultation document. The IAIS plans to continue with this approach for 2016 field testing.

9.2.3.2 Equity Risk

Question 123. Assuming that a volatility stress is included in the ICS framework, is it sensible to use the same relative stress across all types of equity?

EIOPA and four other Members responded that appropriate calibrations would need to be further investigated on the basis of existing data.

OSFI answered that there is much less data available to calibrate a volatility stress, so using a flat relative volatility stress across all types of equity would be a reasonable approach - this is what is done under the Basel standardized approach for market risk (25% relative increase and decrease).

AMF indicated support for the use of the same relative stress for simplicity, noting that over a one year period they expect that all types of equity would react the same.

BaFin suggested the exclusion of this risk from the standard method.

9.2.3.2 Equity Risk

Question 123. Assuming that a volatility stress is included in the ICS framework, is it sensible to use the same relative stress across all types of equity?

Most stakeholders did not support using the same relative stress across all types of equity, suggesting the different volatility levels across equity classes and markets should be reflected.

Some stakeholders viewed the use of the same relative stress across all types of equities to be a reasonable simplification.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach that included the same relative stress on volatilities across all types of equities, excluding preference shares/ hybrid debt. For 2016 field testing, the IAIS is considering a more granular approach such that the volatility stress would vary by maturity but would still apply across all types of equities.

9.2.3.2 Equity Risk

Question 124. Would the proposed design in this example lead to an adequate quantification of the equity risk? If not, why?

EIOPA and four other Members indicated that the appropriateness of the proposal should be assessed through field testing. These members also noted that the proposed scenarios assume no diversification across buckets and implement one of the possible approaches for hybrid debt, stating that this should not be perceived as a suggestion to pursue those technical solutions in the ICS example standard method.

BaFin highlighted that the design represented a good starting point.

OSFI indicated the design should lead to an adequate quantification of equity risk, as it captures the main elements of equity price and volatility risk.

MAS noted the proposed design is rather complicated, suggesting: (i) To remove volatility stresses (ii) remove the up price scenario which would never be the dominant scenario. If removed, then for short equity positions, these should be excluded from the down price scenario unless it can be shown that there is very high correlation between equities in the short and long position.

9.2.3.2 Equity Risk

Question 124. Would the proposed design in this example lead to an adequate quantification of the equity risk? If not, why?

Stakeholders were about equally split on this question.

About half the stakeholders indicated that the proposed design in the example would lead to an adequate quantification of equity risk.

The concerns of the remaining stakeholders included: buckets/ segmentation do not make intuitive sense, consideration of all four of the proposed scenarios would lead to a lot of laborious and unnecessary calculations, and approach may assume all insurers have broadly the same asset mix.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach similar to, but not the same as, the example provided within the consultation document. For 2016 field testing, the IAIS is considering a more granular approach such that the volatility stress would vary by maturity.

9.2.3.2 Equity Risk

Question 125. Does the proposed design in this example involve workable and proportionate calculations? If not, why?

BaFin, EIOPA and five other Members indicated they did not believe the required calculations would be disproportionate for IAIGs.

OSFI indicated the proposed design should be workable, as it is essentially a heat map of an insurer's positions that it should be aware of in its day-to-day operations.

MAS referred to its answer to Question 124, where they noted the proposed design is rather complicated and suggested design improvements.

9.2.3.2 Equity Risk

Question 125. Does the proposed design in this example involve workable and proportionate calculations? If not, why?

Stakeholders were about equally split on this question.

About half the stakeholders indicated that the proposed design in the example would involve workable and proportionate calculations.

The concerns of the remaining stakeholders included: there is limited information and visibility on historical realized volatilities related to certain private assets classes, not clear why four combinations needed, and there should be a simple factor based approach for IAIGs with immaterial equity risks.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach similar to, but not the same as, the example provided within the consultation document. The IAIS is currently reviewing the changes, if any, to be made to this approach for 2016 field testing.

9.2.3.2 Equity Risk

Question 126. What improvements to that design would be needed, in order to improve either accuracy or feasibility?

EIOPA and four other Members indicated the example includes a choice for some technical solutions that are also under debate in this consultation, and so it may happen that the decisions taken on those points are not in the direction currently implemented in the example, which would imply a change in the approach.

BaFin highlighted that volatility risk could be excluded for feasibility and correlation matrices could be included for accuracy and in order to incentivise diversified investments.

MAS referred to their response to Question 124, where they noted the proposed design is rather complicated, and provided the following suggestions: (i) To remove volatility stresses (ii) remove the up price scenario which would never be the dominant scenario. If removed, then for short equity positions, these should be excluded from the down price scenario unless it can be shown that there is very high correlation between equities in the short and long position.

9.2.3.2 Equity Risk

Question 126. What improvements to that design would be needed, in order to improve either accuracy or feasibility?

A couple of stakeholders noted that changes in design will generally affect both accuracy and feasibility. For example: greater complexity (such as maturity dependent shocks) will lead to a less feasible calculations, but potentially more accurate results (and vice versa).

Suggested improvements provided by stakeholders included: consider only one scenario (prices down) and two buckets, and only require quantification of the scenarios with the largest loss.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach similar to, but not the same as, the example provided within the consultation document. The IAIS is currently reviewing the changes, if any, to be made to this approach for 2016 field testing.

9.2.3.2 Equity Risk

Question 127. If GAAP with adjustments were used as an alternative valuation approach for the ICS, detail those adjustments, if any that would be required to produce a comparable equity risk charge to those produced using the market-adjusted valuation approach under the equity risk charge described in this section. Please pay particular attention to equity market sensitive liabilities like variable annuities and index annuities.

EIOPA, and four other Members indicated the methodology for calculation of ICS capital requirements should not be tied to a given valuation methodology. Irrespective of the valuation method being used to determine current estimate insurance liabilities, it should bring the assets and liabilities to a sufficiently comparable position in order to allow for the application of one common methodology for the purpose of determining capital requirements (one single ICS standard method, no multiple parallel frameworks).

One Member indicated that, in the absence of a detailed proposal on GAAP with adjustments, it is difficult to understand the potential impact of this approach. A valuation approach based on GAAP with adjustments will likely involve adjustments to different GAAPs and therefore result in greater variability of outcome. A method based on GAAP with adjustments is likely to be less responsive to changes in risk over time and less likely to achieve the desirable degree of comparability.

9.2.3.2 Equity Risk

Question 127. If GAAP with adjustments were used as an alternative valuation approach for the ICS, detail those adjustments, if any that would be required to produce a comparable equity risk charge to those produced using the market-adjusted valuation approach under the equity risk charge described in this section. Please pay particular attention to equity market sensitive liabilities like variable annuities and index annuities.

Generally, stakeholders did not provide detailed responses to this question for various reasons: they were unclear on the GAAP with adjustments approach, they did not support the approach, or they did not think the differences were significant to their largely non-life business activities.

One stakeholder suggested that it may not be feasible without reverting to a market-adjusted approach. Another stakeholder suggested that, if GAAP with adjustments is essentially cost accounting or an unlocked book value gross premium valuation approach, the use of a factor-based approach is possible but is likely to be highly approximate.

IAIS Response: In 2015, the IAIS field tested an equity risk capital approach based upon a GAAP with adjustments valuation methodology. For 2016, the IAIS plans to continue to field test an equity risk capital approach based upon a GAAP with adjustments valuation methodology.

9.2.3.3 Real Estate Risk

Question 128. Is it appropriate to use a stress approach to calculate the real estate risk within the example standard method for the ICS capital requirement? Why or why not?

BaFin, EIOPA, MAS and six other Members support the use of a stress approach and it would better reflect the impact of risk mitigating mechanisms.

AMF stated that a stress approach is appropriate because it would be more risk-sensitive by applying credit factor to lease value and market risk to residual market value.

OSFI indicated that a full stress approach will be too complicated for a standard approach, and so they are supportive of a shock approach.

NAIC outlined that a factor based approach is most appropriate for real estate risk, as it leans toward simplicity (ICS Principle 8) and is likely to enhance comparability between a GAAP Plus and Market Adjusted Valuation.

9.2.3.3 Real Estate Risk

Question 128. Is it appropriate to use a stress approach to calculate the real estate risk within the example standard method for the ICS capital requirement? Why or why not?

The great majority of stakeholders supported the use of a stress approach to calculate real estate risk - many highlighted that it better captured risks/ reflected risk mitigating mechanisms.

Some stakeholders indicated that a stress approach should be required only where real estate portfolios are material, otherwise a factor-based approach should be allowable.

A few stakeholders supported a factor-based approach for reasons of simplicity of measurement.

IAIS Response: In 2015, the IAIS field tested a stress approach for real estate risk capital. The IAIS plans to continue with this approach for 2016 field testing.

9.2.3.3 Real Estate Risk

Question 129. Which components should be included within the real estate risk charge, if a stress approach is taken?

All Member respondents supported a stress on the level of real estate market prices. Additionally: EIOPA and four other Members indicated a stress on the volatility would need a lot data which would be quite difficult. Also, stressing the amount and timing of investment cash flows is linked to liquidity risk, which should be addressed more broadly in risk management requirements.

BaFin suggested excluding volatility. MAS also suggested excluding volatility shocks, and noted the liquidity impact of a change in the cash flows would be more suitable for a liquidity framework.

AMF also supported a stress to the amount and timing of real estate cash flows, as did OSFI as long as stresses are applied to exposure measures that in sum do not exceed the total value of a property.

CIRC stated market price volatility should be considered as it is the main source of real estate risk and, as it is not usually a significant portion of a insurer's portfolio, not to complicate the modeling.

9.2.3.3 Real Estate Risk

Question 129. Which components should be included within the real estate risk charge, if a stress approach is taken?

The great majority of stakeholders supported a stress to the level of real estate market prices only. Most suggested that including stresses to volatility and to the amount and timing of cash flows would make it too complicated and/ or there may be data availability problems.

One stakeholder suggested using the same method as for equity shocks for consistency reasons.

Another stakeholder indicated that the real estate charge must take leverage into consideration.

IAIS Response: In 2015, the IAIS field tested only a stress to the level of real estate market prices. The IAIS plans to continue with this approach for 2016 field testing.

9.2.3.3 Real Estate Risk

Question 130. Is it appropriate to include property held for own use in the real estate risk charge?

BaFin, EIOPA, MAS and six other Members support the inclusion of property held for own use within the real estate risk charge.

AMF responded 'yes', and noted that own use property should be at market value.

OSFI also indicated It is appropriate to include property held for own use within the real estate risk charge, but noted that such property is often carried at depreciated cost instead of market value, and this cost basis is often lower than market. OSFI suggested that, if a market value stress is applied to own-use real estate, an insurer should be given credit in the requirement for the amount by which the current carrying value is below the current market value.

NAIC outlined that, in theory, owner occupied property carries different risks from rented real estate. Owner occupied property is generally better maintained and has fewer vacancies. It should therefore carry a lower factor. However, it is usually not a large part of the investment portfolio for IAIGs (although it may be significant for small insurers), and based on ICS Principle 8 it would be appropriate to use the same factors as for investment property. Similarly, on pragmatic grounds, U.S. RBC charges owner occupied at the same factor as other real estate.

CIRC suggested not including own use property within the real estate risk capital charge.

9.2.3.3 Real Estate Risk

Question 130. Is it appropriate to include property held for own use in the real estate risk charge?

The great majority of stakeholders supported including property held for own use in the real estate risk charge. However, about half of those stakeholders cited conditions for their support, including that the level of stress should be lower, or that it should only be included if the asset is given a value in the available capital resources.

A few stakeholders did not support including property held for own use in the real estate charge, reasons cited include that own use property does not generate cash flows and that it adds additional complexity for little benefit.

IAIS Response: In 2015, the IAIS field tested an approach for determining real estate risk capital that included property held for own use. The IAIS plans to continue with this approach for 2016 field testing.

9.2.3.3 Real Estate Risk

Question 131. Is it worthwhile to have different stresses applied depending on specific items or usage characteristics? If yes, under a stress of real estate market price approach, should the granularity of the stress be limited to only broad characteristics, such as commercial vs residential, to cover the real estate risk within the example standard method for the ICS capital requirement? What would be the optimal granularity for the example standard method for the ICS capital requirement?

BaFin, EIOPA, OSFI and four other Members do not support the application of difference stresses depending on specific items or usage characteristics. The key consideration was that it would require too granular data, which is likely not available.

MAS noted if there is a lack of calibration material, it would be appropriate to have just one category.

AMF stated that the optimal granularity is contingent on data available to determine risk factors.

CIRC supported using differing stresses and suggested implementation be left to local regulators given the variety and complexity of factors affecting the price of real estate price in all countries.

9.2.3.3 Real Estate Risk

Question 131. Is it worthwhile to have different stresses applied depending on specific items or usage characteristics? If yes, under a stress of real estate market price approach, should the granularity of the stress be limited to only broad characteristics, such as commercial vs residential, to cover the real estate risk within the example standard method for the ICS capital requirement? What would be the optimal granularity for the example standard method for the ICS capital requirement?

Most stakeholders supported either no or very limited additional granularity (such as the broad commercial/ residential classification). Most of these stakeholders indicated that the increased complexity of greater granularity would outweigh the benefits.

Some stakeholders suggested that greater granularity would better capture the differing risks. One stakeholder suggested property risk should recognise geographical diversification.

IAIS Response: In 2015, the IAIS field tested an approach that used the same stress level across all real estate categories. The IAIS plans to continue with this approach for 2016 field testing.

9.2.3.3 Real Estate Risk

Question 132. Would the benefits of the increased risk sensitivity of a layered approach based on splitting a rental yield in a real estate spread on top of a financial component outweigh the costs of increased complexity? Why or why not?

BaFin, EIOPA, MAS and five other Members indicated such an approach would be too complex/ very difficult to implement in practice:.

OSFI noted that any requirement that can be expressed as a stress to rental yields can be expressed equivalently as a direct stress to property values, but It is the corresponding property value stress that should be specified as this is a more transparent requirement that is easier to assess.

9.2.3.3 Real Estate Risk

Question 132. Would the benefits of the increased risk sensitivity of a layered approach based on splitting a rental yield in a real estate spread on top of a financial component outweigh the costs of increased complexity? Why or why not?

The great majority of stakeholders did not believe the use of a layered approach outweighed the costs of increased complexity. Some also indicated it would not increase accuracy.

One stakeholder indicated that using the layered approach implies that real estate assets are sensitive to interest rates, which from an Asset and Liability Management perspective is more close to economic perspectives. This approach would lead to a more beneficial interest rate risk exposure and so the benefits outweighed the costs of increased complexity.

IAIS Response: In 2015, the IAIS did not field test a layered approach based upon splitting a rental yield in a real estate spread. The IAIS does not plan to field test a layered approach in 2016.

9.2.3.3 Real Estate Risk

Question 133. Should lease payments and other contractually specified cash flows associated with a property be unbundled from its market value? Is it appropriate to use an equity-type stress for the residual amount?

BaFin, EIOPA and five other Members do not support unbundling in such a case. MAS indicated that such an approach would be too complicated.

Most stakeholders did not support the unbundling of property cash flows/ use of an equity-type stress for residual amounts, many suggested it was overly complex.

A couple stakeholders suggested that the relative materiality of the different types of exposures should be considered when making a decision on the level of granularity required. One stakeholder supported unbundling.

IAIS Response: In 2015, the IAIS did not field test an approach that required an unbundling of cash flows. The IAIS does not plan to field test such an approach in 2016.

9.2.3.4 Currency/FX Risk

Question 134. Is the proposed stress or scenario approach appropriate? If not, please describe a more appropriate approach and explain why it is more appropriate.

BaFin, EIOPA, MAS and six other Members support the proposed stress approach.

OSFI commented that a factor-based approach would be simpler, with factors applied to an insurer's net open position (assets minus liabilities, with hedges included) in each currency.

Most stakeholders support the proposed stress approach.

IAIS Response: A stress approach will be maintained for currency risk for 2016 field testing.

9.2.3.4 Currency/FX Risk

Question 135. Is the identification of the reference currency for the purpose of assessing the currency risk appropriate? If not, please explain why, suggest an alternative approach and explain why this will be more appropriate.

BaFin, EIOPA, MAS, OSFI and five other Members support using the reference currency, defined to be the currency in which the group-wide supervisor assesses the solvency position of the IAIG.

BMA commented that an IAIG carrying on risks in many currencies needs to have its assets spread over those currencies, not just at the best estimate level included in the balance sheet, but also to cover adverse experience.

UK PRA suggested an alternative approach. First, a currency risk charge is applied where assets are denominated in a different currency than the currency of liabilities (referred here as local currency). Second, a currency translation risk applied to net assets determined in the first step to allow for the deterioration of local currency against the currency in which group financial statements are prepared, if these two currencies are different.

Several stakeholders support using the reference currency, as defined in the consultation document. Other stakeholders suggested the IAIS use a “basket of currencies” (see slide 7).

IAIS Response: The reference currency, defined to be the currency in which the group-wide supervisor assesses the solvency position of the IAIG, will be maintained for 2016 field testing.

9.2.3.4 Currency/FX Risk

Question 135. Is the identification of the reference currency for the purpose of assessing the currency risk appropriate? If not, please explain why, suggest an alternative approach and explain why this will be more appropriate.

Themes from Responses	IAIS Response
The stress approach should not discourage IAIGs from holding surplus assets in foreign currencies. A preferred approach would be to allow IAIGs to choose between a “home currency”, a “basket of currencies” based on where the risk resides.	The reference currency, defined to be the currency in which the group-wide supervisor assesses the solvency position of the IAIG, will be maintained for 2016 field testing.

9.2.3.4 Currency/FX Risk

Question 136. Is the proposal to adopt option b) for the standard method appropriate? If not, please describe a more appropriate proposal and explain why it is more appropriate.

BaFin, EIOPA, MAS, OSFI and five other Members support the option b) which is the single stress approach.

Russia supports option a) because option b) does not take into account individual country fluctuations, which may be significant for IAIGs.

Stakeholders responses varied on this issue. Several stakeholders support option b) due to its simplicity. Some stakeholders support option a), noting that this option would more appropriately reflect the riskiness of each currency.

IAIS Response: The IAIS is considering a more granular approach to currency risk for 2016 field testing, as well as the potential impact this could have on the aggregation approach.

9.2.3.4 Currency/FX Risk

Question 137. Is proposal to adopt option a) for the standard method appropriate? If not, please describe a more appropriate approach and explain why it is more appropriate.

BaFin, EIOPA, OSFI and five other Members support option a) which calibrates the stress to take into account the correlation between the movements of the currencies of a reasonably well diversified portfolio of insurance assets and liabilities.

Stakeholders support was almost evenly split between options a) and b).

Stakeholders commented that the benefits of option a) are: correlations are implicitly taken into account in the calibrated shocks and the application of shocks is less complex.

Stakeholders commented that the benefits of option b) are: it takes into account potential divergences from a well-diversified portfolio and it appropriately reflects the correlation between individual currencies.

IAIS Response: The IAIS is considering a more granular approach to currency risk for 2016 field testing, as well as the potential impact this could have on the aggregation approach.

9.2.3.4 Currency/FX Risk

Question 138. How should the currency risk charge be applied to net capital investments in foreign subsidiaries?

BaFin, EIOPA and four other Members commented that an exemption of investments in foreign subsidiaries would overlook a risk at the group level. Field testing could be used to further assess the materiality of this issue.

MAS supports a limited exemption expressed as a percentage of total liabilities of the subsidiary.

OSFI supports a limited exemption based, ideally, on the subsidiary's ICS capital requirement, but for simplicity it could be based on a percentage of total liabilities of the subsidiary.

Stakeholders support was almost evenly split between two options: (1) applying the currency risk charge to the net capital investment in foreign subsidiaries and (2) exempting the local capital requirement of the subsidiary from currency risk.

IAIS Response: For 2016 field testing, the IAIS continues to consider the appropriate treatment of net capital investments in foreign subsidiaries.