EUROPEAN COMMISSION
Internal Market and Services DG

FINANCIAL INSTITUTIONS
Insurance and pensions

Brussels, 15 April 2008
Annex to MARKT/2505/08

Errata to the

QIS4 Technical Specifications

(MARKT/2505/08)

Reference	Comment
TS.II.A.15	Replace "own founds" with "own funds".
TS.II.A.27	Start numbering with (a).
TS.II.A.30	The reference to paragraph TS.II.D.60 should be replaced by a reference to "paragraphs TS.II.D.57 to TS.II.D.63".
TS.II.B.19	The paragraph is redundant given the paragraph above and should be deleted. No re-numbering of the following paragraphs.
Footnote 14 on page 24	The end of the footnote ("as opposed to future renewals") should read: "as opposed to expected future renewals that are not included within the current insurance contracts".
TS.II.B.35	Start numbering with (a).
TS.II.C.18	The first sentence should read "The operational risk capital charge for a single segment can always be calculated using the SCR standard formula."
TS.II.C.18	The last sentence should be de-underlined.
TS.II.C.25	In last sentence replace "I" with "in".
TS.II.C.25	Replace Dur_{mod} with $Dur_{mod,lob}$
TS.II.C.26	Replace Dur_{mod} with $Dur_{mod,lob}$
TS.II.D.4	Replace "are managed separately" with "are not managed separately".
TS.II.D.11	Replace "where the have an option enabling" with "where they have an option enabling"
TS.II.D.34	The last sentence in the first paragraph can be removed. The content has been replaced with the following paragraph.
TS.II.D.64- TS.II.D.75	The subtitle "Small insurers or portfolios" refers to paragraphs TS.II.D.64 - TS.II.D.76 and should be in bold.
TS.II.D.76, Input	"Δ = the minimum guaranteed spread over r" should read "δ = the minimum guaranteed spread over r"

TS.II.D.76, Input	"R = the technical interest rate" should read "r = the technical interest rate"
TS.II.D.76, Input	"B = the participation coefficient" should read "β = the participation coefficient"
TS.II.D.76, Calculation	"R_t t is a function $R_t = m(I_t)$ of the return I_t on the investments in year t." should read "R_t is a function $R_t = m(I_t)$ of the return I_t on the investments in year t."
TS.V.D.5	The numbering of sub-paragraphs should start with 1) and end with 6)
TS.VI.A.1	The graph should also show a triangle for the $Health_{WC}$ sub-module, since this sub-module benefits from the risk absorbing properties future profit sharing as well.
TS.VI.A.1	The term "risk mitigating effect" should be replaced by: "risk absorbing properties" in the legend.
Footnote 29 on page 127	The footnote should read: "Where for market risk, counterparty default risk, life underwriting risk and health underwriting risk the capital charges "SCR" are not including the potential risk absorbing effect of future profit sharing."
TS.IX.C.6	The following footnote should be added at the end of the second sentence (after the word "year"): "It is recognised that further work should be conducted on the extent to which hedging strategies could be taken into account over the one-year time horizon. Participants are invited to share their views on the impact of such hedging strategies on their risk profile, as well as any suggestions on how to reflect it in the SCR calculation." In addition, the second subparagraph from "Participants should not assume…" until "within the standard formula", should be deleted.
TS.IX.C.20	The definition of $Hedge_i$ should be amended as follows: "$Hedge_i$ = The change in Market value of hedges per individual index i under stress (i.e. value of hedges before stress minus value of hedges after stress). This means that an increase in the value of the hedge following a change in the market level of volafactor means that $Hedge_i$ will be a negative figure."

TS.IX.C.20	The definition of PostStressLiabilityValue should be amended as follows: "PostStressLiabilityValue = Change in the value of the liabilities following a change in the value of equities/hedges of RevisedEquityStressTest (i.e. value of liabilities before stress minus value of liabilities after stress). This implies that a decrease in the value of liabilities following the *volafactor$_i$ shock* will correspond to a positive *PostStressLiabilityValue* figure."
TS.IX.C.20	The second but last formula should read: „RevisedEquityStressTest = AggregateChangeInEquityValues / PreStressEquityValue"
TS.IX.C.20	The last formula should read: "Mkt$_{eq,i}$ = max(AggregateChangeInEquityValue - PostStressLiabilityValue,0)"
TS.IX.C.20	The last formula should read: "Mkt$_{eq,i}$ = max(PostStressLiabilityValue + AggregateChangeInEquityValue,0)"
TS.IX.C.25	Add the following line: "The value of c_t as of 31 December 2006 is: $c_t = +0.076$"
TS.IX.C.26	Add at the end of paragraph: "The following table should then be used as a proxy for the parameter α: _table below_ "
TS.IX.F.19	The formula for structured credit products should read: "Mkt$_{sp}$^{struct} = MV^{struct} * Dur^{struct} * Σ (%*Mv$_i$^{struct}* G*(rating$_i$))* "
TS.IX.F.19	Below "MV = Total market value…" add the following line:

Table for TS.IX.C.26:

Average duration	below 2 years	Between 2 years and 3 years	Between 3 years and 4 years	Between 4 year and 5 years	5 years and above
α	0.2	0.3	0.5	0.7	1.0

	"MV^{struct} = Total market value of structured credit products portfolio"
TS.X.A.14	The paragraph should read: "The Herfindahl index for counterparty exposure is computed as $$H = \frac{\sum_i LGD_i^2}{\left(\sum_i LGD_i\right)^2}$$ where the sum is taken over all counterparties."
TS.X.A.14	Delete: ~~"The Herfindahl index H$_{fd}$, H$_{int}$, H$_{oce}$ for the financial derivative exposures, the receivables from intermediaries, as well as any other credit exposures are computed in the same way, over all counterparties classified in the same category."~~
TS.XII.A.2	The term "risk mitigating effect" should be replaced by: "risk absorbing properties"
TS.XIII.C.18-19 (on page 185 in chapter TS.XII)	Paragraphs should be labelled TS.XII.C.18 and TS.XII.C.19 respectively
TS.XII.D.36 method 1	Health$_{WCCAT}$ should read WComp$_{CAT}$
TS.XIII.B.9	In order to clarify the American geographical area, the bullets "North America (excluding Canada and US), Canada, US, each country of South America, Central America" should be replaced by: **"US, Canada, Mexico, rest of North and Central America (eg. Caribbean), each country of Southern America"**.
Footnote 101 on page 230	The footnote should read: "The Framework Directive Proposal recognises diversification benefits across the whole group, not just across its EEA entities, when calculating the group SCR. However the extent of the EEA / non-EEA diversification effects is still unknown and should be measured in order to assess the impact of Solvency II. QIS4 aims to identify and analyse these diversification effects. The default method provides a benchmark for analysis, by comparison with the variations set out in sections TS.XVI.C and TS.XVI.D of the specifications. "
TS.XVI.B.14	SCR(Mkt$_{int}$) should read SCR$\vert$Mkt$_{int}$ in the first sentence and SCR(Mkt$_{int}$) should read SCR$^{Group}\vert$Mkt$_{int}$ in the third sentence.

	Consequently, the complete paragraph should then read: "The effect of interest rate shocks can be calculated on the consolidated approach by working with the components of the $SCR\mid Mkt_{int}$ calculated for each solo entity or with-profit fund. The calculation needs to take into account that upward and downward shocks on interest rate cannot happen at the same time. The $SCR^{Group}\mid Mkt_{int}$ for the Group can then be expressed as follows: $$SCR^{Group} = \max\left\{ \begin{array}{l} \sum_{i=1}^{n} SCR^{i}\mid \text{upwardshock on interest rate} \\ \sum_{i=1}^{n} SCR^{i}\mid \text{downwardshock on interest rate} \end{array}\right\}$$ where the index i refers to the calculation of $SCR\mid Mkt_{int}$ for each of the entities taken into consideration, including each with-profit fund."
TS.XVI.B.16	$SCR(Mkt_{fx})$ should read $SCR\mid Mkt_{fx}$ in the first sentence and $SCR(Mkt_{fx})$ should read $SCR^{Group}\mid Mkt_{fx}$ in the third sentence. Consequently, the complete paragraph should then read: "As for interest rate risk above (see TS.XVI.B.14) the effect of foreign exchange rate shocks can be calculated on the consolidated approach by working with the components of the $SCR\mid Mkt_{fx}$ calculated for each solo entity or with-profit fund. The calculation needs to take into account that upward and downward shocks on exchange rate cannot happen at the same time. The $SCR^{Group}\mid Mkt_{fx}$ for the Group can then be expressed as follows: $$SCR^{Group} = \max\left\{ \begin{array}{l} \sum_{i=1}^{n} SCR^{i}\mid \text{upwardshock on currency} \\ \sum_{i=1}^{n} SCR^{i}\mid \text{downwardshock on currency} \end{array}\right\}$$ where the index i refers to the calculation of $SCR\mid Mkt_{fx}$ for each of the entities taken into consideration, including each with-profit fund."
Paragraph 8 on page 233 (below TS.XVI.B.16)	De-bold the word "they".
TS.XVII.B.1	The reference to paragraph TS.V.C.6 should be replaced by a reference to TS.V.C.7

TS.XVII.B.1&2	Replace "KC factors" by: "adjustment for the risk absorbing properties of future profit sharing"
Footnote 111 on page 249	Replace "KC factor" by: "adjustment for the risk absorbing properties of future profit sharing"
Footnote 112	The footnote does not appear in the Word print layout or in paper copies. It should read: "This method doesn't result in a total accurate division of a market storm (for instance including "Indirect business" in the distribution might be a bit misleading), but it gives a simple, logical and pragmatic solution."
Footnote 113 on page 256	The footnote does not appear in the Word print layout or in paper copies. It should read: "NB: this column only shows the costs of one of the two windstorms resulting in a market loss of € 2 billion."
Footnote 114 on page 257	The footnote does not appear in the Word print layout or in paper copies. It should read: "NB: this table shows the breakdown into classes as it was in 1999. Change-of-ownership insurance is therefore placed in the class "Other private insurance", health insurance is placed in the class "Single accident and sickness insurance", and proportional and non-proportional indirect non-life insurance is united in the class "Indirect non-life insurance". The same method should be used to classify the company's gross premium income, when the market share is calculated."
Footnote 115 on page 257	The footnote does not appear in the Word print layout or in paper copies. It should read: "In cases where such an individual scenario can be expected to be more severe than any of the scenarios in the list."
Footnote 116 on page 259	The footnote does not appear in the Word print layout or in paper copies. It should read: "Catastrophe excess of loss and stop-loss reinsurance."
Footnote 117 on page 259	The footnote does not appear in the Word print layout or in paper copies. It should read: "The regional storm indices for the 8,234 postal code areas will be

	available in a separate Excel file.”
Footnote 118 on page 261	The footnote does not appear in the Word print layout or in paper copies. It should read: “The regional earthquake indices for the 8,234 postal code areas will be available in a separate Excel list.”
Footnote 119 on page 262	The footnote does not appear in the Word print layout or in paper copies. It should read: “The regional natural hazard indices for the 444 registration districts will be available in a separate Excel file.”
Footnote 120 on page 271	The footnote does not appear in the Word print layout or in paper copies. It should read: “Note that additional health insurance may be offered. This health insurance is not mandatory for Dutch citizens and not covered by the national equalisation system. The system only covers the basic health insurance policy.“
Footnote 121 on page 274	The footnote does not appear in the Word print layout or in paper copies. It should read: “Disability also includes morbidity or sickness, i.e. policies with (lump sum or annual) benefits that are payable contingent on some definition of sickness.”
Footnote 122 on page 274	The footnote does not appear in the Word print layout or in paper copies. It should read: “Not including the potential risk absorbing properties of future profit sharing.”
TS.XVII.H.9	"disshock" should be replaced by "claimsshock"
TS.XVII.H.11	<u>Capital charge for the underwriting risk in respect to ~~claims~~ recovery</u>
TS.XVII.J (Annex SCR 8)	For clarity, a footnote should be added to the title of the annex, saying “This background document was provided to Commission Services by the French authorities on 13 March 2008”.
TS.XVII.K	“SCR_{nop}” should read “SCR_{ncp}”