	Comments Template on the Consultation Paper on the methodology to derive the UFR and its implementation	Deadline 18 July 2016 23:59 CET
Name of Company:	Insurance Europe	
Disclosure of comments:	Please indicate if your comments should be treated as confidential:	Public
	Please follow the following instructions for filling in the template: ⇨ Do **not** change the numbering in the column "reference"; if you change numbering, your comment cannot be processed by our IT tool ⇨ Leave the last column empty. ⇨ Please fill in your comment in the relevant row. If you have no comment on a paragraph or a cell, keep the row empty. ⇨ Our IT tool does not allow processing of comments which do not refer to the specific numbers below. **Please send the completed template, in Word Format, to** CP-16-003@eiopa.europa.eu **Our IT tool does not allow processing of any other formats.** The numbering of the paragraphs refers to on the Consultation Paper on the methodology to derive the UFR and its implementation.	
Reference	**Comment**	
General Comment	Insurance Europe welcomes the opportunity to comment on the consultation paper on the methodology to derive the UFR and its implementation. We recognise the need going forward for transparency and formalisation of the methodology for determining and changing the UFR over time . The need and appropriateness of changing the UFR at this stage is challengeable and questionable. This is because the UFR is a long-term parameter and a few years of low interest rates does not yet enough justifify a change in long-term expectations to	

	trigger a change in the UFR, in the same way that a few years of higher rates would not justify an increase. The UFR is an extremely important factor in the determination of the Solvency II discount. It was defined and intended as a stable and long-term parameter (the aim is to have a stable UFR over 100 years according to EIOPA's QIS 5 calibration paper) in order to avoid being itself a source of artificial volatility. Any update to the UFR methodology, its implementation time-table and implementation process should take this aim for stability into account. It should also take into account the overall level of prudency of the Solvency II framework as well as potential unintended consequences of a change. In particular, the same conditions of current low interest rates that have given rise to the focus on the UFRs, also have impacts on risk-free rates (RFR) and other elements of Solvency II, notably the risk margins for financial and non-financial risks and so there may be other impacts of low interests rates that need to be taken into account. We therefore believe that the UFR value for the Euro (and also for a wide range of other currencies) should be kept at its current level of 4.2% until the review of the Solvency II standard formula. We do not think it is appropriate to change such an important element of Solvency II valuation separately from a wider analysis and the appropriate timing of this process is as part of the review processes built into Solvency II starting from 2018. Furthermore, the current UFR levels (4.2% for the Euro and a wide range of other currencies) were the basis of the entire Omnibus II compromise. The long-term guarantee measures (LTG measures) set by the European legislator would have been designed differently with a diverging UFR level. It is then of the utmost importance the political compromise pertains and that the UFR methodology and values are not changed outside of the wider context of the SII review and in particular the review of the LTG measures due by 2021. Given the key role of the UFR as an anchor for Solvency liability calculations and the	

potential for very significant impact of any change, an impact analysis should be undertaken before any methodology and implementation planning is finalised. This impact analysis should include an assessment of the following:

- The impact on overall level of prudence of the Solvency II framework to avoid creating unintended and uncesssary burden.
- Potential pro-cyclical effects and other unintended consequences for customers or the wider economy.
- Back testing to ensure the objectives of producing a stable long-term rate, and avoiding additional volatility in liability calculations have been achieved.

Irrespective of the merits or otherwise of a particular methodology, finalisation of the methodology and any changes to UFR should be incorporated into the Solvency II review processes and not done as a stand-alone change. Below we provide arguments why this is the proper way to proceed:

- **The Solvency II framework requires the UFR to be stable over time**. The UFR should only change as a result of fundamental changes in long-term expectations according to Article 47 in the SII Delegated Regulation. While interest rates are currently expected to be low for a number of years it is too early to say if this will remain for the very long-term.
  - Changes to the UFR can have a very significant impact, such as creating artificial volatility in insurers' balance sheets, bringing uncertainty and negating the stated purpose of the UFR to provide stability for long-term liability valuations.
  - Stability is an essential objective of the UFR and it should continue to be aligned with the outcome of the LTG Assessment and Omnibus II, as already agreed by co-legislators.
  - With the current EIOPA proposal, the UFR would likely be recalibrated on annual basis. This is not in line with the legal requirement of stability of the UFR.
  - As evidenced by EIOPA itself in its QIS 5 document on the Risk-free interest rates – Extrapolation method, "a central feature is the definition of an unconditional ultimate long-term forward rate (UFR) for infinite maturity

	and for all practical purposes for very long maturities". • **The actual discount rates used to value liabilities for Solvency II, with the current UFR of 4.2% (for the Euro and a wide range of other currencies), are already low (far lower than the UFR) and will already tend to be conservative relative to the actual cashflow yield from asset.** Even though investment returns are also currently relatively low, they are still higher than the discount rates currently required by Solvency II and so technical provisions already have a level of conservativeness built into them. o As an example, the discount rate for the Euro at years 10, 20 and 60-year maturity are 0.79%, 1.33% and 2.99% respectively according to the April RFR curves for the Euro published by EIOPA (including VA). Rates without the VA are even lower (0.58%, 1.12%, and 2.90% respectively). These discount rates do not appear to be excessive compared to actual investment returns possible with a portfolio of even relatively low risk investments. o The proposed methodology would have lowered the discount rates with VA in April for 60 years to 2.70% (2.61% without VA). This does appear excessively conservative, and would have a significant impact on companies' capital position at a time where economic conditions are already extremely challenging. • **The current framework has other additional layers of buffers in the form of the risk margin which Solvency II requires to be included in the calculation of technical provisions but are not actually needed to pay claims**. According to QIS 5 these could already increase technical provisions by up to approximately 10% and are likely to have become even larger since then due to the low interest rates. The risk margin calculation can also create significant volatility and therefore, before changing the UFR in a way that will increase technical provisions, the impact of low interest rates on these risk margins and the interaction with any changes to the UFR needs to be understood. • **In addition to the conservative nature of technical provisions calculation, there is already an SCR required for low interest rates which means companies are holding extra capital in case interest rates**	

	are lower than current rates and remain so for ever. The interest down shock is roughly equivalent to lowering the UFR for the Euro to 3.01% at 60-year. This means that companies hold enough capital to assume that the UFR will decrease to 3% instantaneously and therefore there is no urgency to already lower the UFR under SII (based on April 2016 data). ○ The ORSA and other aspects of Pillar II require companies to carry out the necessary sensitivity analysis and risk management to ensure low interest rates issue are understood and managed by the company. • **There are dependencies with other elements of the Solvency II framework that need to be considered before changing the UFR.** ○ The Risk Margin and the value of options and guarantees are both elements of the technical provision calculation that increase when interest rates decrease. In fact, concern about the excessive size and volatility of the risk margin under low interest rates has been raised by a national surpervisor as a significant concern that needs addressing. ○ The impact of any change of the UFR on the upward and downward interest rate shocks, as defined in the Article 166 and 167 of the SII Delegated Regulation may also need to be recalibrated based on the new UFR values as they were calibrated based on discount curves calculated with a 4.2% UFR. • **Insurers are already taking management actions to adjust for low interest rates**. While low interest rates are creating real challenges for the industry, companies have been taking action — in some cases, for many years — to adapt their products, investment mix, hedges and capital levels. Solvency II makes this a requirement for all companies, creating the need for multiple layers of buffers and protection, as well as introducing very detailed monitoring to allow supervisors to ensure the necessary actions are being taken. • **Supervisors will know if a company faces specific related issues to low interest rates, or any other issue, and can intervene to ensure appropriate action and can monitor progress.** Solvency II Pillar III requires an enormous amount of reporting and Pillar II gives supervisors powers and duties to intervene early if necessary. EIOPA also will have all the	

information. Therefore, if the concern is that individual companies facing problems may not be taking necessary actions, then there is no need to increase overall levels of conservatism for the entire industry to address this.

- **Lowering the UFR values now can have unintended consequences on customers because it can push insurers unnecesseraly towards sub-optimal investment strategies, and on the economy because it may encourage pro-cyclical behaviors.**
- **The whole Solvency II framework is not yet business as usual for insurers.** Given the large amount of work involved in Solvency II and additional pressure from low interest rates, insurers should be able to focus on implementation and adapting their business models without unnecessary uncertainty in key underlying parameters used in the valuation.

We provide below a summary of Insurance Europe comments on EIOPA's proposed methodology.

Elements of the methodology we support:

- **We agree that transparency, replicability and predictability are of major importance when determining a methodology for the UFR and it should also foster appropriate risk management incentives.**
- **UFR should be the sum of long-term expected real interest rates plus expected inflation**. Insurance Europe agrees to maintain the UFR as the sum of expected real rate and expected inflation as this approach is in line with Article 47 in the SII Delegated Regulation. We note that the word "long-term" should not be dropped from the description of real interest rates as it is a key part of the legal text. However, the meaning may be clarified so that it is clear that the UFR is a one year rate far in the future (at least 60 years for the Euro) – and therefore long-term should be understood in the sense stable over time and should not be understood as referring to the long-term maturity of the rates.
- **We agree that a bucketing approach *(*)* to calibrate expected inflation target should be continued with an additional "high inflation" bucket to**

	ensure few high inflation currencies are appropriately taken into account. *(*)Finance Norway does not support the bucket approach as proposed by EIOPA. The design of the inflation component should be dealt with as part of the Solvency II review process.* • **We agree that long-term historical data series can be used and additional years should be added as time passes.** However, should the use of AMECO and MEI database confirmed, we would recommend starting the data at 1961 because although ideally data from earlier years would be used, 1961 is the first year a wide set of data is available. • **We agree that changes to the UFR, once triggered by the methodology should be spread in a predictable way over a number of years**. However, we believe steps of 10bps should be used instead of the proposed 20bps. **Flaws in the proposed methodology and how these can be addressed:** • **In the extrapolation, the UFR is used as the one year forward rate. It therefore seems incorrect to use 3-months interbank interest rates as a basis to calibrate the UFRs values. If there is no suitable source of 1-year maturity rates data then 3-month data must be scaled to provide 1-year maturity rates. EIOPA should therefore at least confirm that that no suitable 1 year rate data source is available and that the 3-month data referred to in the AMECO database have been annualized into 1-year rates equivalents.** We note that one year expected inflation data is used as input and this is correct. • The year 1960 should be excluded in the calibration of the annual rates as defined in EIOPA methodology because there are missing data for too many countries. Including it involves assumptions that bring noise in the overall calculation. • **Denmark should not be excluded from the country data used in the calculation of the expected real rate**. There is not sufficient justification to exclude available data from Denmark for which there is almost the same data	

available as for other countries (and none is given in the consultation paper). It is reasonable to include at least Denmark because (1) AMECO and OECD data are currently available for this country (respectively as from 1961 and 1967) and (2) EIOPA has no rationale to exclude Denmark since EIOPA acknowledges that it based his decision considering the weights of currencies determined on the basis of a survey to which Denmark did not respond (see footnote 23 page 29).

- **Geographical weights should be applied to country data.** There is strong logic in country weighting. Since the expected annual yield arising from an average insurer' assets portfolio (proxied by the annual rate defined in EIOPA's proposal) is driven by the weighting of the yield of investments made across several countries, the assumption that the annual rate is based on a simple average is wrong. We believe that a geographical weighting of the countries considered improves the representativeness of the real interest rate component, and does not add material complexity being a simple calculation. In this regard, the EIOPA approach on geographical weighting as suggested in the consultation document represents a step in the right direction. However, it still contains some open issues that must be clarified before the implementation of the new UFR methodology.
- **A simple average should be applied to the historical data series in the calculation of the expected real rate - there is no rational for using time weights in the calculation.** There is no evidence provided that shows that recent data will be more representative of long-term rates than older data and therefore justify giving higher weighting for the recent years. In fact the opposite can be more logically argued because the current rates are a direct result of ECB monetary policy which is not intended to remain in place over the long-term and can be considered a distortion of natural rates. This would also reduce the complexity of the methodology and remove the expert judgment used to select the use of a weighted average with an exponential shape based on Beta=0.99.
- **The methodology should result in a stable UFR and not annual changes – a simple and straightforward way to achieve this is to recalibrate at**

	intervals of a significant number of years and to phase-in any changes. With the current EIOPA proposal, the UFR would likely be recalibrated on annual basis which is not in line with the legal texts which require a stable UFR**.** o A target UFR value should therefore be recalculated after a long, fixed period of time. If the new figure differs from the existing UFR, the new figure would be phased-in over a number of years with a maximum annual change of 10 bps. o Any methodology should be back tested to confirm it meets the objective of a long-term stable rate.	
Q1. (pg. 56)	**Q1: The proposed methodology is based on the same calculation approach that was used to calculate the current UFRs, in particular UFR is proposed to be the sum of expected real rate and expected inflation. Do you agree with that approach?** Yes, Insurance Europe agrees to maintain the UFR as the sum of expected real rate and expected inflation as this approach is in line with the Article 47 in the SII Delegated Regulation. However, clarification is needed as it is confusing that EIOPA refers to "expected real rate" in their proposal while the regulation (Article 47) refers to "long-term real interest rate". • The UFR is an essential part of the SII framework and it plays a very significant role in the prudential calculation of technical provisions and thus for insurers' capital requirements. The idea that the UFR should be based on long-term expectations and thereby provide a stable anchor for the calculation of the yield is very sensible. • But we note that Article 47 of the Delegated Acts states that: "For each currency the ultimate forward rate shall take account of **expectations of the long-term real interest rate** and of expected inflation, provided those expectations can be determined for that currency in a reliable manner." EIOPA should keep this definition and avoid "redrafting" the legal text.	

Q2. (pg. 56)	**Q2: According to the proposed methodology the expected real rate is calculated on the basis of past real rates since 1960 (widening window approach). Do you consider that to be an appropriate period for averaging the past real rates?** **Yes the period is appropriate, but we have the following comments on the particular data sources and calculation methodology**: • **Historical data** should be used as using current market data to generate the UFR is not in line with requirement of stability, especially because current data are subject to short-term volatility. Historical rates have to be used because there is absolutely no evidence that current or recent market data such as forward rates can actually be used as useful or reliable predictors of rates in the future. In fact academic studies (Choudry, Macauley, Hickman, Culbertson, Fama) have found evidence that forward rates are not accurate predictors of future spot rates – see comments on paragraph 38 for sources and further information. Current and recent forward rates seem to do nothing other than provide forecast line with current rates – therefore when forward rates were high, they (wrongly) predicted future spot rates would be high, now when forward rates are low they predict (potentially wrongly too) that future spot rates will be low. • EIOPA has decided to base its proposal on database from the European Commission (AMECO) and the OECD (MEI). While these appear reasonable sources, **EIOPA should made clear in its assessment whether these database are consistent and whether EIOPA has investigated other potential sources**. • **In the extrapolation, the UFR is used as the one year forward rate. It is therefore seems incorrect to use 3-months interbank interest rates as a basis to calibrate the UFRs values. It therefore seems incorrect to use 3-months interbank interest rates as a basis to calibrate the UFRs values. .** If there is no suitable source of 1-year maturity rates data then 3-month data must be scaled to provide 1-year maturity rates. **EIOPA should therefore at least confirm that no suitable 1 year rate data source is available and that the 3-month data referred to in the AMECO database have been annualized into 1-year rates equivalents**. We note that one year expected inflation data is used as input and this is correct.	

	• **We agree that long-term historical data series can be used and additional years should be added as time passes as proposed.** However, should the use of AMECO and MEI database confirmed, we would recommend starting the data at 1961 because although ideally data from earlier years would be used, 1961 is the first year a wide set of data is available. • **The year 1960 should be excluded in the calibration of the annual rates** as defined in EIOPA methodology because there are missing data for too many countries. Including it involves assumptions that bring noise in the overall calculation. • **Denmark should not be excluded from the country data used in the calculation of the expected real rate**. There is not sufficient justification (and none is given in the consultation paper) to exclude available data from Denmark for which there is almost the same data available as for other countries. It is reasonable to include at least Denmark because (1) AMECO and OECD data are currently available for this country (respectively as from 1961 and 1967) and (2) EIOPA has no rationale to exclude Denmark since EIOPA acknowledges that it based its decision considering the weights of currencies determined on the basis of a survey to which Denmark did not respond (see footnote 23 page 29). • **Geographical weights should be applied to country data.** There is strong logic in country weighting. Since the expected annual yield arising from an average insurer' assets portfolio (proxied by the annual rate defined in EIOPA's proposal) is driven by the weighting of the yield of investments made across several countries, the assumption that the annual rate is based on a simple average is wrong. We believe that a geographical weighting of the countries considered improves the representativeness of the real interest rate component, and does not add material complexity being a simple calculation. In this regard, the EIOPA approach on geographical weighting as suggested in the consultation document represents a step in the right direction. However, the EIOPA approach still contains some open issues that must be clarified before the implementation of the new UFR methodology.	

Q3. (pg. 56)	**Q3: The expected real rate of the proposed methodology is derived as a weighted average of past real rates. Which weights do you consider appropriate for that purpose?** **Insurance Europe considers equal weights (i.e. Beta=1) should be used, in other words a simple average.** Insurance Europe disagrees with the approach taken to give more weights on the most recent years. While there appears to be some evidence of changes between the period covering the first half of the 20th centuary and since then, we are not aware of any evidence of any further fundamental shift since then. There is no way to know if rates will stay low for the next 50 years or increase from current levels back to the higher levels seen during the period until about 10 years ago. Therefore, **a simple average should be applied to the historical data series in the calculation of the expected real rate.** There is no evidence provided that shows that recent data will be more representative of long-term rates than older data and therefore justify giving higher weighting for the recent years. In fact the opposite can be more logically argued because the current rates are a direct result of ECB monetary policy which is not intended to remain in place over the long-term and can be considered a distortion of recent natural rates. This would also reduce the complexity of the methodology and remove the expert judgment used to select the use of a weighted average with an exponential shape based on Beta=0.99.	
Q4. (pg. 56)	**Q4: According to the proposed methodology, there are four buckets for the expected inflation rate (1%, 2%, 3% and 4%). Do you consider it appropriate to use inflation buckets and the choice of buckets adequate?** **Yes, the proposed inflation bucketing *(*)* and addition of an extra bucket is appropriate in order to achieve stability and ensure the framework works for all high inflation currencies too**. • With regards to data from OECD, EIOPA should make clear whether the initial impact of changing the data source has been assessed and whether the definition of the central banks regarding inflation rates is similar to the definition as used by the OECD in their MEI database.	

	(*)Finance Norway does not support the bucket approach as proposed by EIOPA. The design of the inflation component should be dealt with as part of the Solvency II review process.	
Q5. (pg. 56)	**Q5: The proposed methodology includes a limit to the annual change of the UFR of 20 bps. Do you consider such a limit necessary and appropriate?** **Yes it is very important that any changes are spread over a number of years . However the annual change should be limited to 10bps given the very significant impact any changes can have.**	
Q6. (pg. 56)	**Q6: According to the proposed methodology the expected real rate component is rounded to 5 bps. Do you consider such a rounding necessary and appropriate?** **Yes, within the framework of the proposed methodology, a 5bps rounding seems reasonnable**.	
Q7. (pg. 56)	**Q7: Do you consider the proposed implementation of the methodology appropriate?** **No. The need and appropriateness of changing the UFR at this stage is challengeable and questionable. This is because the UFR is a long-term parameter and a few years of low interest rates does not yet enough justifify a change in long-term expectations to trigger a change in the UFR, in the same way that a few years of higher rates would not justify an increase.** **There are two separate implementation concerns. Firstly, the UFR should be recalibrated every 10 years and not annually and secondly the new calculation methodology cannot be finalized and applied before the SII review has been completed.** In regards to the first concern – re-calibration process: • **Annual adjustments of the UFR as suggested in EIOPA's proposed methodology goes against the legal text which intended that the UFR be a stable long-term parameter and to avoid volatility and uncertainty regarding the prudential valuation of technical provisions and capital requirements**. As evidenced by EIOPA itself in its QIS 5 document on the Risk-free interest rates – Extrapolation method, "a central feature is the	

	definition of an unconditional ultimate long-term forward rate (UFR) for infinite maturity and for all practical purposes for very long maturities". This is a major issue in particular for life insurers because they will have to de-risk their investments as they will not only have to take account of any present level of the UFR but also the volatility in the UFR. This would result in a reduction of life insurers capacity to hold risky investments, causing them to get lower return out of their investments and in turn, will create an incentive for companies to increase their level of premiums and/or lower pensions promises. • **The methodology should result in a stable UFR and not annual changes – a simple and straightforward way to achieve this is to recalibrate at intervals of a significant number of years and to phase-in any changes.** With the current EIOPA proposal, the UFR would likely be recalibrated on annual basis which is not in line with the legal texts which require a stable UFR**.** o A target UFR value should therefore be recalculated after a long, fixed period of time. If the new figure differs from the existing UFR, the new figure would be phased-in over a number of years with a maximum annual change of 10 bps. o Any methodology should be back tested to confirm it meets the objective of a long-term stable rate. • Insurers should be granted at least six months (rather than the proposed 3 months) from the announcement of a new calibration in order to ensure that the new methodology will be embedded into their operation systems. The process that insurers will have to follow to meet this goal is time consuming so insurers need more time between the annoucement and the implementation/first publication of risk-free-rates curves using the new UFR values. o Indeed, once the new UFR is known, insurers are required to assess the impact directly and consider whether they still meet the new SCR with their Eligible Own Funds as per the requirement to continuous meet their SCR needs (Article 138 of the SII Directive 2009/138/EC), especially for the next 3 months. This implies that all insurers sensitive to the RFR will have to calculate the SCR based on 31 March data, which will entail a re-run of the internal models as as the end of Q1 for internal model users. A change in the UFR will also imply that insurers who are managing their ALM based on the RFR will have to change their assets and liabilities mix by unwinding asset positions or derivative positions.	

	In regards to the second concern: timing of finalizing and first application of methodology: • We strongly believe that the overall level of prudency of the Solvency II framework has to be taken into account as well as potential unintended consequences of a change. In particular, the same conditions of current low interest rates that have given rise to the focus on the UFRs, also have impacts on risk-free rates (RFR) and other elements of Solvency II, notably the risk margins for financial and non-financial risks and so there may be other impacts of low interests rates that need to be taken into account. • Given the key role of the UFR as an anchor for Solvency liability calculations, an impact analysis should be undertaken before any methodology and implementation planning is finalised. This impact analysis should include an assessment of the following: o The impact on overall level of prudence of the Solvency II framework to avoid creating unintended and uncesssary burden. o Potential pro-cyclical effects and other unintended consequences for customers or the wider economy. o Back testing to ensure the objective of producing a stable long-term rate, and avoiding additional volatility in liability calculations has been achieved. We therefore believe that the UFR value for the Euro (and also a wide range of other currencies) should be kept at its current level of 4.2% until the review of the Solvency II standard formula. We do not think it is appropriate to change such an important element of Solvency II valuation separately from a wider analysis and the appropriate timing of this process is as part of the review processes built into Solvency II starting from 2018. EIOPA also noted the interlinked nature of the framework in its y EIOPA in its Technical Findings on the Long-Term Guarantees Assessment report dated from 14 June 2013 (EIOPA/13/296) where it stated (pages 72-73): *"(…) it is difficult to judge on one parameter of the extrapolation approach in isolation as LLP, UFR and convergence period are closely interlinked in terms of their impact on the level and volatility of the solvency position of insurers"*. Furthermore, the current UFR levels (4.2% for the Euro and a wide range of other currencies) were the basis of the entire Omnibus II compromise. The long-term guarantee measures (LTG measures) set by the European legislator would have been	

	designed differently with a diverging UFR level. It is then of the utmost importance the political compromise pertains and that the UFR methodology and values are not changed outside of a wider review of the SII review and in particular the review of the LTG measures due by 2021. We highlight also the following reasons why there is **no urgency** from a policy holder protection or any other point of view to rush changes to the UFR: • **The actual discount rates used to value liabilities for Solvency II, with the current UFR of 4.2% (for the Euro and a wide range of other currencies), are already low (far lower than the UFR) and will already tend to be conservative relative to the actual cashflow yield from asset.** Even though investment returns are also currently relatively low, they are still higher than the discount rates currently required by Solvency II and so technical provisions already have a level of conservativeness built into them. o As an example, the discount rate for the Euro at years 10, 20 and 60-year maturity are 0.79%, 1.33% and 2.99% respectively according to the April RFR curves for the Euro published by EIOPA (including VA). Rates without the VA are even lower (0.58%, 1.12%, and 2.90% respectively). These discount rates appear conservative rather than excessively high compared to actual investment returns possible with a portfolio of even relatively low risk investments. o The proposed methodology would have lowered the discount rates with VA in April for 60 years to 2.70% (2.61% without VA). This does appear excessively conservative, and would risk forcing companies into excessively conservative reserving and so have a significant impact on companies' capital position at a time where economic conditions are already extremely challenging. • **The current framework has other additional layers of buffers in the form of the risk margin which Solvency II requires to be included in the calculation of technical provisions but are not actually needed to pay claims**. According to QIS 5 these could already increase technical provisions by up to approximately 10% and are likely to have become even larger since then due to the low interest rates. The risk margin calculation can also create significant volatility and therefore, before changing the UFR in a way that will increase technical provisions, the impact of low interest rates on these risk margins and the interaction with any changes to the UFR needs to be	

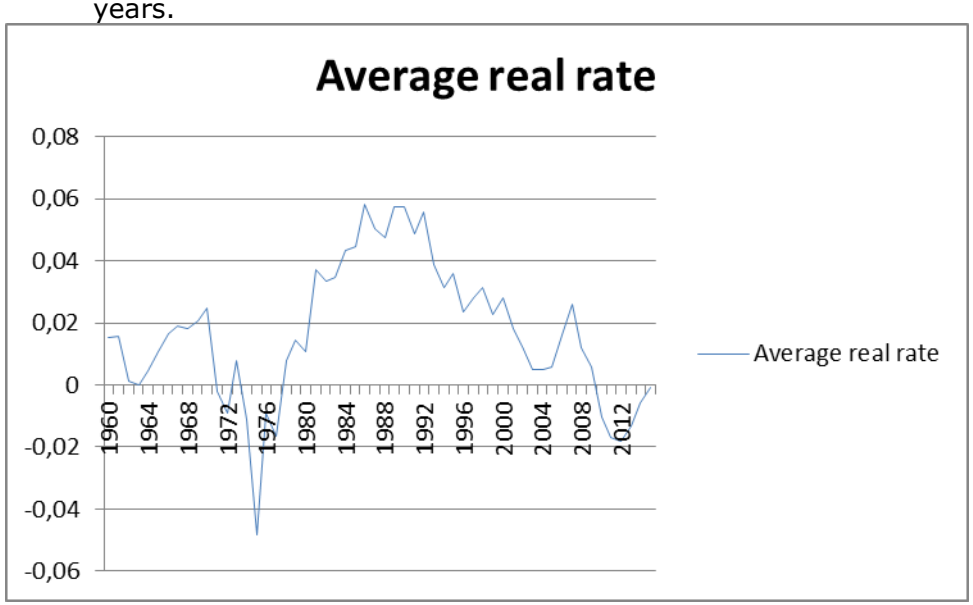
	understood. • **In addition to the conservative nature of technical provisions calculation, there is already an SCR required for low interest rates which means companies are holding extra capital in case interest rates are lower than current rates and remain so for ever.** The interest down shock in April is actualy roughly equivalent to lowering the UFR for the Euro to 3.01% at 60-year and therefore there is no urgency to already lower the UFR under SII. This means that companies hold enough capital to assume that the UFR will decrease to 3% instantaneously and therefore there is no urgency to already lower the UFR under SII (based on April 2016 data). o The ORSA and other aspects of Pillar II require companies to carry out the necessary sensitivity analysis and risk management to ensure low interest rates issue are understood and managed by the company. • **There are dependencies with other elements of the Solvency II framework that need to be considered before changing the UFR.** o The Risk Margin and the value of options and guarantees are both elements of the technical provision calculation that increase when interest rates decrease. In fact, concern about the excessive size and volatility of the risk margin under low interest rates has been raised by a national surpervisor as a significant concern that needs addressing. o The impact of any change of the UFR on the upward and downward interest rate shocks, as defined in the Article 166 and 167 of the SII Delegated Regulation may also need to be recalibrated based on the new UFR values as they were calibrated based on discount curves calculated with a 4.2% UFR. • **Insurers are already taking management actions to adjust for low interest rates**. While low interest rates are creating real challenges for the industry, companies have been taking action — in some cases, for many years — to adapt their products, investment mix, hedges and capital levels. Solvency II makes this a requirement for all companies, creating the need for multiple layers of buffers and protection, as well as introducing very detailed monitoring to allow supervisors to ensure the necessary actions are being taken. • **Supervisors will know if a company faces specific related issues to low interest rates, or any other issue, and can intervene to ensure appropriate action and can monitor progress.** Solvency II Pillar III requires an enormous amount of reporting and Pillar II gives supervisors	

	powers and duties to intervene early if necessary. EIOPA also will have all the information. Therefore, if the concern is that individual companies facing problems may not be taking necessary actions, then there is no need to increase overall levels of conservatism for the entire industry to address this. • **Lowering the UFR values now can have unintended consequences on customers because it can push insurers unnecesseraly towards sub-optimal investment strategies, and on the economy because it may encourage pro-cyclical behaviors.** • **The whole Solvency II framework is not yet business as usual for insurers.** Given the large amount of work involved in Solvency II and additional pressure from low interest rates, insurers should be able to focus on implementation and adapting their business models without unnecessary uncertainty in key underlying parameters used in the valuation.	
Paragraph 1.		
Paragraph 2.		
Paragraph 3.		
Paragraph 4.		
Paragraph 5.	It has to be noted that not all health insurance has a long duration. Reference should be made to Health insurance as LoB within Life insurance (or SLT Health).	
Paragraph 6.		
Paragraph 7.		
Paragraph 8.		
Paragraph 9.		
Paragraph 10.	Article 47 of the SII Delegated Regulation lays down the principles for deriving the UFR. It is explicitly stated in Art. 47 (1) that the "*ultimate forward rate referred to in paragraph 1 of Article 46 shall be stable over time and shall only change as a result in changes in long-term expectations*". In our view an annual adjustment of the UFR does not constitute stability, and we don't see enough justification that long term expectations have changed or will change in the future on an annual basis. We therefore believe that the UFR value for the Euro (and also for a wide range of other currencies) should be kept at its current level of 4.2% until the review of the Solvency II standard formula. We do not think it is	

	appropriate to change such an important element of Solvency II valuation separately from a wider analysis and the appropriate timing of this process is as part of the review processes built into Solvency II starting from 2018. This wider analysis would need to clearly captures changes in long term expectations of interest rates and inflation, and would need to demonstrate clearly that such long-term expectations have in fact changed before proceeding to any change in the UFR values.	
Paragraph 11.	Reference should also be made to the purpose of the UFR e.g. to stabilise the volatility of the longer term cash flows. The rates of the term structure are only referring to the liquid part of the term structure. This requirement cannot hold for the non-liquid part of the term structure as no market is available.	
Paragraph 12.	The UFR does not in itself determine whether technical provisions are adequate. Rather, it is the discount yield curve in conjunction with the best estimate liability cash flows that determine whether provisions are adequate. It is important to take note that the discount yield varies along with variations in the market rates that are used for deriving the yield curve. The UFR on the other hand does not need to change in order for the yield curve to adapt to changing market conditions. Furthermore, it should be noted that setting a UFR too low could imply that insurers have to set up provisions which are too high. This can also cause problems for the existence of insurers and their ability to pay out claims/benefits to policyholders – in particular the unavailability of own funds can hamper innovations and other necessary changes/adaptations within the insurance industry.	
Paragraph 13.	Long term nature suggest that insurers can anticipate on the future development well in advance. EIOPA proposal of calculating the new UFR in March and implement this in June is not consistent with this statement.	
Paragraph 14.	The QIS5 including analysis and a UFR set at 4.2% was used to finalise the Solvency II legislation, requirements and final calibration. The fact that the UFR was set at 4.2% including all the other components of the extrapolation technique was instrumental in the Omnibus II agreement in which also the variables surrounding the Volatility Adjustment, Matching Adjustment and other LTGA measures were set. A different UFR at that stage would also have a distinct impact on those other measures. In principle the other variables of the LTGA measures and other calibrations should than also be reviewed at the same time to ensure consistency within the SII framework.	
Paragraph 15.	See comment at paragraph 14	

Paragraph 16.	EIOPA states that "some stakeholders" are concerned that the currently used UFR values are too high. It is important to note that it is entirely inappropriate to compare the currently used UFR values and the market values from which the observable part of the discount curves are derived. Indeed, the actual discount rates used to value liabilities for Solvency II, with the current UFR of 4.2% (for the Euro and a wide range of other currencies), are already low (far lower than the UFR) and will already tend to be conservative relative to the actual cashflow yield from asset. Even though investment returns are also currently relatively low, they are still higher than the discount rates currently required by Solvency II and so technical provisions already have a level of conservativeness built into them. • As an example, the discount rate for the Euro at years 10, 20 and 60-year maturity are 0.79%, 1.33% and 2.99% respectively according to the April RFR curves for the Euro published by EIOPA (including VA). Rates without the VA are even lower (0.58%, 1.12%, and 2.90% respectively). These discount rates appear conservative rather than excessively high compared to actual investment returns possible with a portfolio of even relatively low risk investments. • The proposed methodology would have lowered the discount rates with VA in April for 60 years to 2.70% (2,61% without VA). These do appear excessively conservative, and would risk forcing companies into excessively conservative reserving and so have a significant impact on companies' capital position at a time where economic conditions are already extremely challenging.	
Paragraph 17.	Many stakeholders are assessing the current interest rate environment to be the long term expectation. EIOPA should be clearer on what long-term expectations are as stakeholders can be clear on what changes in long-term expectations really means. In our views, long term expectation should be expectations beyond the last liquid point.	
Paragraph 18.	We believe that this phasing in should also be applied when changing other major features used to set the risk-free rates term structures, for example the Last Liquid Point or the Credit Risk Adjustment.	
Paragraph 19.	Further to response to question 7, once insurers will be notified to the change to the UFR in March of a given year, they will have to assess the impact of this change on their SCR running their calculations and assessing their on-going compliance. Those insurers who will have a breach will have to notify their supervisors and will have only three month to take remedial actions. We believe that a longer period of time between	

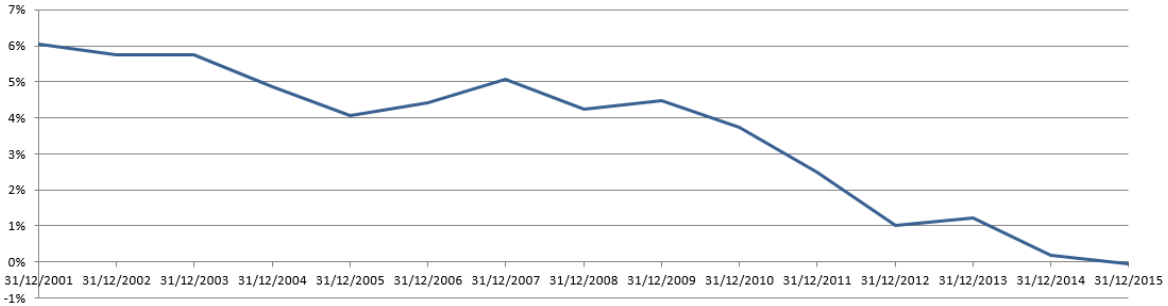
	the notification of changes to the UFRs and the use of the new UFRs in the determination of the risk-free interest rate term structure is needed so nsurers can cope with the changing situation. For instance, insurers who are using the risk-free rates term structure to hedge would need to change their hedging over the same period.	
Paragraph 20.		
Paragraph 21.		
Paragraph 22.	See response to question 3	
Paragraph 23.		
Paragraph 24.		
Paragraph 25.	Further to response to question 2. The proposed EIOPA's approach methodology has some limitations, and we want to highlight the following: • **Data**. It should be noted that the short term nominal rates referred to in paragraph 25 of EIOPA's consultation paper are in fact mainly 3-month (annualised) interbank rates. It does not seem clear why the methodology should be based on 3-month rates. ○ The Article 47(2) of the SII Delegated Regulation states that "*the ultimate forward rate shall not include a term premium to reflect the additional risk of holding long term investments*." The UFR is construed so as to be the ultimate one-year rate, and thus it should entail the risk of holding investments for a one year period and not for a shorter maturity period. Basing the UFR on 3-month rates may lead to a rate which does not adequately reflect the risk of holding one year investments. • **Accuracy of Forecast**. The graph below shows the average real rate used in EIOPA's proposed approach. It shows two distinct periods where rates are negative. Early and mid 1970'ies were heavily influenced buy the collapse of the Bretton Woods system and the severe oil crisis. Both, factors which influenced short term rates. Looking at the graph, it becomes clear that the considerable spike in real rates that followed from around 1980 and ten years on could not have been foreseen, had predictions of the real rate been based on a weighing of data where recent years were assigned the highest weights. The negative rate period from 1969 until 1977 would have dragged down the forecast to a level much below that which turned out to be reality.	

	○ The level of rates in the past apparantly does not hold much information about future levels, and in conclusion, there seems to be no clear argument for assigning different weights to either distant or recent years. Rather, it would seem natural to assign equal weights to all years.  	
Paragraph 26.		
Paragraph 27.		
Paragraph 28.	On which sources will EIOPA rely on to perform this assessment of past inflation experience and projection of inflations?	
Paragraph 29.		
Paragraph 30.		
Paragraph 31.		
Paragraph 32.		
Paragraph 33.		
Paragraph 34.		

Paragraph 35.		
Paragraph 36.	See response to question 1	
Paragraph 37.		
Paragraph 38.	**Barrie & Hibbert:** • We consider that only the Barrie-Hibbert methodology can be considered a valid alternative method for comparison purposes because it is a robust method that has been developed based on a valid economic rationale and is consistent with the approach specified in the legal text Article 47(2) of the SII Delegated Regulation. The consultation document indicates in the list of cons that the UFR includes a term premium but the document also indicates that their method also produces a UFR without term premium of 4.2% and with term premium of 5.7%. Therefore this criticism can be ignored if the figure without term premium is taken as the basis for comparison. The valid disadvantages identified are the lack of transparency over sources of data and detailed methodology but the UFR it produces is valid for comparison purposes. **Dutch UFR:** • The DNB methodology is based on (1) using the swap rates (published by Bloomberg from 09/08/2001 to 31/12/2015) to determine spot rates (extrapolating the term structure where needed), (2) deriving the 1 year forward rate in 20 years maturity from these spot rates and (3) taking 10 years average (from 2005 to 2015). • We consider there to be several problems with this methodology. Firstly this approach is based on a core assumption that forward rates can be used to estimate spot rates in the future. Our review of academic and empirical research indicates that this assumption is incorrect with rather evidence that forward rates are not good predictors of future spot rates (see below). In fact it seems that forward rates tend to predict future spot rates which reflect current conditions so when current spot rates are high they predict that future spot rates will be high and when current rates are low they predict low future spot rates. Also, the DNB uses 20 year forward rates when it is 60 year forward rates we are aiming to forecast. Finally, as the DNB itself indicated (Advisory report of the UFR Committee page 40), the 10 years average is arbitrary and we believe that this actually creates a volatile UFR and does not ensure a stable outcome as required by the SII legal text. For example extending the average from the arbitrary 10 to	

say 14 years, increases the UFR produced from 3.3% to 3.9%.

- Academic findings: "*Forward rates are not therefore a prediction of what spot interest rates are likely to be in the future, rather a mathematically derived set of interest rates that reflect the current spot term structure and the rules of no-arbitrage*" (Choudry, 2008:17) (**). The finding that forward rates are not good predictors of future spot rates is also supported by Macauley (1938), Hickman (1942) and Culbertson (1957).
- Empirically findings: Based on the data used in the Dutch UFR, the Figure below shows the 1 year spot rate at the end of 2015 as predicted by the historical forward rates for each year from 2001. So we see what the 14 year forward in 2001 was predicting for the 1 year spot rate in 2015, and the 13 year forward rate in 2002 was predicting for the 2015 1 year spot rate. In 2015 we show the actual 1 year spot rate. If the forward rates were good predictors we woud see a straight line predicting slightly negative rates but we see instead that it is obvious that these forward rates are not good predictors. In fact as noted above forward rates seem to predict (wrongly) that spot rates in the future will be similar to current spot rates.



IAIS:

- The IAIS data cannot be considered suitable for comparison purposes or a potential method. The data was generated only for the purpose of generating data for a field testing exercise and was never intended as an actual regulatory measure used for any purpose other than testing potential methodologies. It used

	expected growth rates instead of real interest rates to generate a UFR. It was never proposed as a valid methodology based on economic practice or theory. The only justification we are aware of for using this data was that it was an OECD source and available for a large range of countries and this was convenient for the purposes of the testing exercise. • EIOPA furthermore references Bruce Hansens and Ananth Seshadris paper "Uncovering the Relationship bwtween Real Interest Rates and Economic Growth" and conclude that there may be a low correlation between economic growth and future real rates. This, as we see it, cannot be used an argument against using long term expected growth as a proxy for long term real rates. Hansen and Seshadri state that their data reveals a negative 0.20 correlation between growth and future real rates. However, the correlation is tested and found to be statistically insignificant. Further to this, Hansen and Seshadri are not concerned with the long run relationship between growth and interest rates in a stable run. Rather, they are concerned with the offsetting effects between changes in growth and interest rates in the much shorter run in order to assess what – if any – effect a correlation between the two have for the ability to make projections for trust funds capital accumulations and for the uncertainty of such projections. This is clearly an entirely different matter compared to figuring out what the Solvency II UFR should be. **Swiss SST:** The Swiss SST uses a simple adjustment factor to scale down the SII UFR and will therefore automatically produce a UFR which is lower than the SII UFR. It clearly cannot be valid to use the Swiss SST UFR as any sort of useful comparison or potential method to be used for generating the SII UFR. (**) Choudhry M. (2008). The yield curve, and spot and forward interest rates Surrey: Yieldcurves.com Accessible from http://www.yieldcurve.com/Mktresearch/files/Choudhry_IntroToYieldCurve_Jan2008.pdf	
Paragraph 39.		
Paragraph 40.		
Paragraph 41.	With the exception of Barrie-Hibbert, the other "methodologies" listed in this paragragh should have been discarded (based on the analysis above) as unsuitable for	

	both comparisons to the current UFR of 4.2%.	
Paragraph 42.		
Paragraph 43.		
Paragraph 44.		
Paragraph 45.		
Paragraph 46.		
Paragraph 47.		
Paragraph 48.	See response to question 3	
Paragraph 49.		
Paragraph 50.		
Paragraph 51.	See response to question 3	
Paragraph 52.		
Paragraph 53.		
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Paragraph 60.	Choosing the rigth data for setting the UFR is something that should be treated with the utmost care. It is obviously of paramount importance that the data can be proved reliable and actually represent that it is claimed they represent. EIOPA should provide further evidence as to why the selected database are the best to determine the UFR.	
Paragraph 61.	See our comment in question 2	
Paragraph 62.		
Paragraph 63.		
Paragraph 64.		
Paragraph 65.		
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Paragraph 67.		
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Paragraph 77.	See our comment in question 2	
Paragraph 78.		
Paragraph 79.		
Paragraph 80.	We agree that if the UFR should be based on historical data, then the term premium should be excluded by basing the real rate component on instruments where the yield includes a zero or negligible term premium. However, EIOPAs presentation of the term premium in paragraph 80 seems overly simplified. In fact, the term premium is the excess yield that investors require to commit to holding a long-term bond instead of a series of shorter-term bonds. Thus, a key component of the term premium is investor expectations about the future course of short-term interest rates over the lifetime of the long-term bond. This makes deriving the term premium a rather complicated matter resting on a number of assumptions. On these grounds we support EIOPA proposed way of excluding the term premium. However, for one-year bonds we would argue that the term premium given the present low rates is very close to zero. Thus, we see no reason why EIOPA proposed approach should not be calibrated on one-year instruments.	
Paragraph 81.		
Paragraph 82.		
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Paragraph 98.		
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Paragraph 103.		
Paragraph 104.		
Paragraph 105.	EIOPA should indicate clearly sources expected to be used for these currencies.	
Paragraph 106.		
Paragraph 107.		
Paragraph 108.		
Paragraph 109.		
Paragraph 110.		
Paragraph 111.		
Paragraph 112.		

Paragraph 113.		
Paragraph 114.		
Paragraph 115.		
Paragraph 116.		
Paragraph 117.		
Paragraph 118.		
Paragraph 119.	See our comment in question 7 Further to that, the implementation of UFR changes over the long term is a critical issue. In our view it is essential to ensure that insurers, and particularly life insurers – being long term investors – have the opportunity to adjust their investments to changes in the UFR. However, it is equally essential to ensure that speculators cannot exploit knowledge about future changes to the UFR to take positions in anticipation of life insurers' expected portfolio changes. We therefore invite EIOPA to think about this point and recognise that there are no urgency in changing the UFR as companies have a wide range of management actions to cope with changes in underlying economics circumstances.	
Paragraph 120.		
Paragraph 121.		
Paragraph 122.	See our comment in question 5	
Paragraph 123.		
Paragraph 124.		
Paragraph 125.		
Paragraph 126.		
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Paragraph 131.		
Paragraph 132.		

Paragraph 133.	As stated in the General Comments section, we believe the UFR methodology should result in a stable UFR and not annual changes thereof – therefore the calculation should be done only every 10 years with a phase-in implementation. With the current EIOPA proposal, the UFR would likely be recalibrated on annual basis. This is not in line with the legal requirement of stability of the UFR. Furthermore, EIOPA states that the introduction of a limit to the annual change of UFR is in line with stakeholder feedback from the 2015 consultation. The paragraph 216 of the consultation paper on the UFR review shows that feedback generally pointed to a gradual transition when the UFR is updated. However, respondents most likely have not anticipated that EIOPA would put forward a proposal for an annual update of the UFR and then use the feedback to argue that stakeholders support this proposal. The paragraph 216 also shows that feedback pointed at the necessity that all changes to the UFR should be accompanied by a consultation of stakeholders and an impact assessment. Clearly, this indicates that respondents were anticipating much less frequent updates than EIOPA is now putting forward.	
Paragraph 134.		
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