Pensions

Financial Conduct Authority New redress methodology for pensions transfer advice cases

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Purpose

This report has been prepared for the Financial Conduct Authority ("the FCA") in accordance with the terms of our Framework Agreement for Consultancy Services & Skilled Person Services dated 2 April 2013 and the Contract dated 24 August 2016.

The purpose of this report is to set out our recommendation for a revised methodology for calculating the amount of redress payable in cases where it has been determined that the advice to transfer from a defined benefit pension scheme to a defined contribution pension arrangement was unsuitable. The scope of our work, and limitations, were based on instructions from the FCA and are summarised on page 7. This report has been prepared in the knowledge that the FCA will review and analyse our recommendation and consider whether it is necessary to make any changes to the existing methodology. We understand that our recommendation may be accepted or rejected by the FCA, in whole or in part.

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Technical actuarial standards

This document complies with the relevant Technical Actuarial Standards ("TAS") issued by The Board for Actuarial Standards in so far as we consider them to be proportionate and relevant. The relevant standards are Pensions TAS (TAS P), Reporting Actuarial Information (TAS R), Data (TAS D) and Modelling (TAS M).

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Executive summary

Executive summary

- We have been asked to recommend an approach for calculating redress in cases where the advice given to a consumer to transfer the value of their benefits from a defined benefit pension scheme to a defined contribution pension arrangement has been deemed to be unsuitable. We have not considered why the advice may have been unsuitable or how redress should be calculated in any other circumstances.
- The objective for the amount of redress, which is set by the FCA, is to put consumers back into the position they would have been in had they not received unsuitable advice.
- There are a number of different ways in which redress could be paid to a consumer to meet this objective. We have considered the following options and our summary comments on each are included below:
 - 1. Requiring the consumer to be reinstated into the original defined benefit pension scheme practically this option is unlikely to be available;
 - 2. Requiring firms to purchase a deferred annuity which replicates the value of benefits that would have been paid from the defined benefit pension scheme a deferred annuity is likely to represent a lower risk to the consumer than they would have been exposed to in the defined benefit pension scheme. In addition, this option is likely to over compensate consumers given the cost of a deferred annuity will include the provider's margins for profit, risk and expenses;
 - 3. Requiring firms to provide a guarantee to consumers to pay benefits at the point of retirement we do not expect that any stakeholder would be supportive of this option given the length of time it could potentially take until complaints are finally settled;
 - 4. Contributing to a defined contribution pension arrangement this option could have significant Annual and/or Lifetime Allowance consequences for some consumers; or
 - 5. Calculating redress as a cash amount this option is consistent with the existing approach and we believe it is appropriate for redress to continue to be calculated in this way.
- After deciding to recommend that redress continues to be calculated as a cash amount, we considered the assumptions which could be used to meet the objective for redress. Our recommendation includes:
 - An allowance for consumers to take a pension commencement lump sum at retirement as we expect most consumers would take this option;
 - · Assumptions which we believe better reflect the balance of risk in a defined benefit pension scheme and a defined contribution pension arrangement; and
 - An updated approach to take account of the significant changes in the pensions landscape since the existing approach was originally defined in the 1990s.
- One factor that has shaped our recommendation is the software currently used to calculate redress and potential costs to update it. Our recommended methodology has been designed with the intention that modest software updates will be required, and hence lower costs would be incurred to implement our recommendation.
- We acknowledge that a single approach is unlikely to be suitable in all circumstances, for example, if the consumer's previous defined benefit pension scheme has now entered the Pension Protection Fund; however, we would expect that it would be possible to apply the principles of our recommendation to different scenarios if necessary.

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Scope of our review

Scope of our review

Scope of our report

We have been asked by the FCA to develop an approach to calculate redress in cases of unsuitable advice to transfer from a defined benefit pension scheme to a defined contribution pension arrangement. We understand the FCA will review our recommendation and decide whether it is necessary to make any changes to the existing approach.

Our recommendation only relates to these circumstances and is not intended to consider, or be used for, any other purpose. In particular, while we have recommended an approach which calculates a capitalised value of benefits from a defined benefit pension scheme, this is done for the purposes of calculating a redress amount and is not intended to represent a cash equivalent transfer value.

We were instructed to:

- Examine the issues with the existing approach to calculate redress, including the key assumptions and variables contained within it and the implications of these for consumer outcomes.
- Recommend an approach for calculating redress including a small number of examples to demonstrate how the redress amounts would change.
- Explain the data required and the precise steps involved in the calculation of the redress amount.
- Consider the advantages and disadvantages of our recommendation from the perspective of consumers, firms and the FCA.

Limitations on scope

- 1. The scope of our report only relates to cases where the advice to transfer was unsuitable and does not consider the reason why the advice was unsuitable.
- 2. Consideration of whether the objective for the amount of redress, which is discussed further on page 9, is still appropriate did not form part of our review. In addition, we have not been asked to directly comment on whether redress calculated using the existing approach meets the objective.
- 3. Our analysis and recommendation do not extend to other circumstances where redress may, or may not, be required, for example (but not exhaustive), advice to opt-out of a defined benefit pension scheme, advice not to join a defined benefit pension scheme, advice regarding the defined contribution pension arrangement investment strategy.
- 4. Our recommendation is based on the assumption that consumers receiving redress will have varying characteristics. If there were to be a large number of cases of a similar nature, we would recommend reviewing the approach to calculate redress to make sure it reflects the circumstances of that situation.
- 5. We have not performed a full cost-benefit analysis of our recommendation.
- 6. Our recommendation is based on market conditions and circumstances at the time the report is written and may subsequently have to be reviewed and revised again in the future.

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Objectives of redress methodology

Objective for the amount of redress

We understand the objective of the redress methodology is, in general, to put a consumer back into the position they would have been in had they not transferred from a defined benefit pension scheme to a defined contribution pension arrangement. The redress methodology does not aim to provide consumers with more than they would have been entitled to.

The approach recommended in this paper has considered the following aims:

- 1. The overall objective to put a consumer back into the position they would have been;
- 2. Minimise the risk that the amount of redress calculated can be gamed;
- 3. Realistically reflect current practices for taking benefits from pension schemes;
- 4. Allow the calculations to be completed quickly to avoid delays in completing complaints;
- 5. The redress calculation should be easy to understand and apply in practice; and
- 6. The redress calculation should reflect the risks that the consumer would have been exposed to in the defined benefit pension scheme compared to the risks that they are exposed to in the defined contribution pension arrangement.

The objective for redress does not specify how any redress should be paid to a member and we have discussed the possible options further on page 15.

The changing pensions landscape

While it is not within our scope to consider the objective for the amount of redress calculated, there have been a number of changes since the existing methodology was designed in the 1990s which support considering the way in which the amount of redress is calculated in order to meet the objective. The changes include:

- An economic and financial environment that is almost unrecognisable when compared with the 1990s. While the assumptions underlying the current methodology have been reviewed on an annual basis, the overarching approach to deriving these assumptions has remained largely unchanged.
- The establishment of the Pension Protection Fund to provide substantial but not full compensation for consumers broadly where an employer becomes insolvent and an eligible defined benefit pension scheme has insufficient resources to pay benefits. The current methodology does not reflect the level of risk in defined benefit pension schemes (with the PPF now delivering a relatively guaranteed minimum level of benefits) compared to defined contribution pension arrangements (with generally no guaranteed level of benefits but with the member having the security of personal beneficial ownership of the assets).
- The timing and form in which pension-related savings can be accessed. Regardless of whether a consumer is a member of a defined benefit pension scheme or defined contribution pension arrangement, experience shows that the majority of consumers will take a proportion of their benefits as a pension commencement lump sum, often regardless of what value the lump sum represents compared to the amount of pension given up. The current methodology makes no allowance for members to exercise this option.
- Changes in the pricing and the volume of the UK annuity market, particularly in light of the accessibility of options for taking benefits from most defined contribution pension arrangements since April 2015. The latest data from the Association of British Insurers implies that the majority of consumers are no longer annuitising defined contribution pension arrangement savings at the point of retiring.
- The Test Achats case which prohibits an insurer from reflecting gender related factors when determining premiums and benefits under insurance policies.
- The abolishment of a compulsory retirement age from employment.
- Data published by the Office for National Statistics which shows a general decline in the proportion of the population who are married and changes to the definition of dependant in many pension schemes.

These factors, and how they have influenced our recommendation, are discussed further on pages 19 to 38.

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Review of the existing approach

Review of the existing approach

Overview of the existing approach

We acknowledge that while an approach exists for calculating redress, there are circumstances where it is necessary to deviate from the methodology so that the amount of redress adequately reflects the underlying circumstances. We have summarised below our understanding of the existing approach:

- The assumptions underlying the calculations are published by the Financial Ombudsman Service ("FOS") and are generally updated on an annual basis.
- The benefits from the defined benefit pension scheme that the consumer would have been entitled to are projected to their assumed retirement age allowing for revaluation of the deferred pension from date of transfer in line with the rules of the defined benefit pension scheme. Where revaluation of benefits is in line with inflation, actual inflation experience can be used up to the date of calculation with future inflation as per the assumptions published by FOS.
- This pension figure is then converted into a capital value using an annuity which reflects the pension increases in payment as set out in the rules of the defined benefit pension scheme.
- The capital value is then discounted back to the calculation date.
- This discounted capital value is then compared to the current value of the consumer's defined contribution pension arrangement savings (adjusted for expected future charges) to determine the amount of any redress payment.

The assumptions required by the calculations, as published by FOS, are currently set as follows:

- *Pre-retirement discount rate* The weighted expected future return on a portfolio of long-dated gilts and equities. It is assumed that when the consumer is 10 or more years from retirement, the proportion in equities is 50% with the remainder in gilts. The weight ascribed to equities linearly decreases over the 10 year period prior to retirement to assume that, at the point the consumer retires, the portfolio is entirely invested in a portfolio of long dated gilts.
- Post retirement discount rate The expected return on a portfolio of long dated gilts.
- *Inflation* Retail Price Index inflation ("RPI") is taken to be the spot yield on the Bank of England's implied inflation curve at a 25 year duration and Consumer Price Index inflation ("CPI") is currently assumed to be 1% p.a. below the rate of RPI.
- *Mortality* Gender specific mortality in line with the 'normal' set of self administered pension scheme mortality tables published by the Continuous Mortality Investigation ("CMI") board in 2008 with an allowance for future improvements in line with the CMI's 2012 core projections and a 1% p.a. long term improvement rate for females and a 1.25% p.a. rate for males.

The existing approach is derived from that adopted as part of the Pensions Review and set out in *Pensions Review Guidance: Pension Transfers and Opt Outs: Review of Past Business (Part 2: Specifications of Standards and Procedure – October 1994).* We are aware of a number of variations to the standard approach being used in practice; however, our understanding is that the approaches being used are consistent with the general principles explained above.

Review of the existing approach

Factors relating to the assumptions used in the existing approach

As part of our review of the existing approach we have considered the assumptions and the factors which need to be considered by our recommendation. A team within PwC has calculated the assumptions published by the Financial Ombudsman Service, as required by the existing approach, whilst also (since 2014) drawing attention to the need for a more fundamental review.

We have summarised our comments on the assumptions below and how these have influenced our recommendation is described on pages 19 to 38.

- The assumptions underlying the existing redress calculations are generally set on an annual basis derived from market conditions on 1 July. These assumptions generally remain fixed from 1 July to 30 June the following year, regardless of market conditions at the time of the calculations. Particularly in recent years there has been significant short term volatility, with additional assumptions being produced in November 2014 to reflect changes in market conditions from 1 July 2014. While calculations under the existing methodology may not fully reflect up to date market conditions, it does give some stability to the amount of redress calculated.
- The pre-retirement discount rate assumption is set as the weighted average of an expected return on bonds assumption and expected return on equities assumption, with de-risking on a linear basis over the ten years prior to the assumed retirement age to a position where the portfolio is assumed to be entirely invested in gilts. We understand that this is intended to broadly represent a defined contribution pension arrangement investment strategy for a typical consumer. Since the changes in 2015 to the accessibility of different benefit options in defined contribution pension arrangements, we have increasingly seen a shift by pension providers to an investment strategy that is tailored to how the consumer expects to take their benefits in retirement. In some cases this includes holding a broader range of asset classes with little or no de-risking as the consumer approaches retirement.
- The post retirement discount rate is the Bank of England's 25-year nominal gilt spot rate which we understand was originally intended to replicate the rate used by providers when pricing annuity policies. The current approach is unlikely to replicate the pricing basis used by a provider; however, there is also a question as to whether the price of an annuity remains an appropriate target.
- The assumed rate of inflation in the current calculations is a flat rate regardless of a consumer's term to retirement. The impact of this approach compared to using an assumption which reflects the expected duration of a consumer's benefits will vary depending on the term to retirement and market conditions at the date of the calculation.
- The existing approach assumes different rates of mortality for males and females. Whilst this is consistent with generally observed life expectancies for males and females, there has been a recent trend towards removing gender discrimination, in particular, as a result of the Test Achats case providers are prohibited from using gender specific factors in pricing insurance products. Other prescribed assumptions used for valuing pension benefits, such as Statutory Money Purchase Illustration (SMPI) projections and Transfer Value Analysis System (TVAS) calculations, use annuities based on an average of male and female mortality assumptions.

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Summary of alternative approaches to calculate redress

Overview of options (1 of 3)

In summary the existing approach to calculating redress requires the comparison of the value of the consumer's benefits in the defined benefit pension scheme (as if the consumer had not transferred) to the value of benefits in the defined contribution pension arrangement; however, this assumes the amount of redress will be paid to a consumer as a cash amount.

There are a number of possible alternative approaches which could be used to meet the objective for the amount of redress. We have considered how the amount of redress could be calculated by considering the following:

- 1. How the redress could be paid to the consumer;
- 2. The approach to calculate the amount of redress; and
- 3. The assumptions required to apply the approach.

How the redress could be paid to the consumer

There are a number of alternative options for how redress could be calculated including:

- *Requiring the consumer to be reinstated into the original defined benefit pension scheme:*
 - In general, we do not expect that this option would be possible as many defined benefit pension schemes are closed to 'new' members.
 - In addition, we consider it unlikely that the firm will be a participating employer in the defined benefit pension scheme and therefore this option could require a complex agreement between a firm and the sponsoring employer of the defined benefit pension scheme.
 - We have therefore not considered this further as an option for providing redress to consumers.
- *Requiring the firm to buy a deferred annuity to provide the benefits the consumer would have received from the defined benefit pension scheme:*
 - It is unlikely that a deferred annuity policy could exactly replicate the benefits which would have been paid by the defined benefit pension scheme and therefore the firm would have to purchase an annuity to provide benefits that were equivalent in value to the benefits from the defined benefit pension scheme.
 - Providing redress in the form of a deferred annuity policy could almost be considered risk free to the consumer, particularly given the existence of the Financial Services Compensation Scheme.
 - In addition, we understand the pricing of annuity contracts will include allowances for a number of factors which are not relevant to defined benefit pension schemes including the provider's margins for profit and risk as well as reflect the provider's reserving requirements.

Overall, we believe that requiring firms to purchase an annuity to provide redress would be putting consumers into a better position than had they not transferred and therefore we have not considered this option further as an approach for providing redress.

Overview of options (2 of 3)

How the redress could be paid to the consumer (continued)

- Requiring the firm to provide a guarantee to the consumer that they will receive the benefits they would be entitled to under the defined benefit pension scheme had they not transferred:
 - This approach could be considered to be the closest to replicating the risks that the consumer would have been exposed to had they not transferred.
 - The firm could, in theory, guarantee to the consumer to pay the benefits during, or at, retirement to replicate the benefits that would have been paid had they not transferred.
 - The consumer would have a known benefit amount at retirement and would be reliant on the firm to provide the benefits as they fall due; however, unless the guarantee was provided through a registered and PPF eligible defined benefit pension scheme, the consumer may receive little, or no, redress.
 - In practical terms this could require the firm to continue to pay redress for many years before the complaint is finally settled and would have accounting implications for the firm and its balance sheet.

From the perspective of all stakeholders (the FCA, the consumer and the firm) we believe it would be more desirable to be able to quickly calculate and settle any redress. This would allow the complaint to be closed and to remove any uncertainty about the timing and/or amount of any redress. We have therefore not considered this option further.

- Calculating redress as a contribution to a defined contribution pension arrangement:
 - While this approach would provide redress in the form of pension benefits, the amount of redress paid could have Annual and Lifetime Allowance implications for a consumer.
 - In addition, it may not be possible for the firm to pay a single lump sum redress amount to a defined contribution pension arrangement if the consumer does not have an employment relationship with the firm.
 - We have not considered this option further.
- Calculating redress as a cash amount:
 - This approach would be consistent with the existing approach for calculating redress and the consumer could subsequently decide how to use the redress payment, for example, the consumer may wish to invest the redress into a defined contribution pension arrangement.
 - While the redress would be a cash amount rather than directly providing benefits in retirement, given our considerations of the other options for providing redress, we consider this to be the most appropriate.

Overview of options (3 of 3)

The approach to calculating the amount of redress

Having decided that our recommendation is to pay redress as a cash amount, the next stage is to consider how to calculate the amount of redress to be paid.

The objective for the amount of the redress payment is to put the consumer back into the position they would have been had they not transferred. To calculate the amount of redress will therefore require a comparison between the value of the benefits which would have been paid to the consumer by the defined benefit pension scheme to the benefits the consumer is entitled to from the defined contribution pension arrangement.

The exact nature of this comparison is explained further on page 40.

The assumptions required to calculate the amount of redress

Having decided on how the redress should be paid and the approach for calculating the amount of redress due, the final aspect to determine is the assumptions which are used to complete the calculation.

Pages 19 to 38 explain the rationale for each of our recommended assumptions.

Further notes

- As discussed above, for the purposes of our report, we have assumed that the redress would be paid as a cash amount to the consumer. The scope of our work does not include consideration of any issues relating to the taxation of benefits payable from defined benefit pension schemes, benefits payable from defined contribution pension arrangements or the taxation of compensation amounts.
- It is important to recognise that small changes in the assumptions used to value the benefits can significantly change the value calculated. The most important factor is the comparison between the value of the benefits in the defined benefit pension scheme and the benefits in the defined contribution pension arrangement. A change in an assumption which only affects one side of the equation can have a far more significant effect on the amount of redress calculated than the impact it has on the value of the benefit if considered in isolation. Therefore, wherever figures are quoted in this report we have focused on the impact on the amount of redress. Our recommended methodology and assumptions were not designed to target any particular change in the value of redress being calculated.

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Factors to consider

Factors to consider when setting an approach Overview

As described, the purpose of this report is to set out our recommendation for an approach to calculate redress given the objective to put consumers back in the position that they would have been in had they not transferred. We have considered a number of factors which have influenced our recommendation. For each factor, how it has influenced our recommendation and the estimated impact on the amount of redress for two example members (where relevant) is described over the following pages.

The characteristics of the example members are as follows:

- Member A as per the member in Example 2 in the Appendices
- Member B as per the member in Example 5 in the Appendices

For clarity, each example calculation in this section assumes pre-retirement expenses of 75 bps p.a. under both scenarios, unless specified otherwise.

Each factor can be categorised as follows:

- 1. General market factors, including:
 - a. The variety of benefit options available to consumers in a defined contribution pension arrangement;
 - b. The existence of the PPF and the additional protection this generally offers members of defined benefit pension schemes;
 - c. Changes in market conditions since the advice was given and the relevant transfer value was paid; and
 - d. Calculation software.

2. Assumptions, including:

- a. The pre-retirement discount rate;
- b. The post-retirement discount rate;
- c. Inflation assumptions;
- d. Mortality assumptions; and
- e. Allowance for members to take a pension commencement lump sum.
- 3. Methodology, including:
 - a. Enhancements to transfer values; and
 - b. Future changes to the assumptions.

Factors to consider when setting an approach General market factors: DC options and calculation software

Benefit options in defined contribution pension arrangements

Overview

The accessibility and options for taking savings from defined contribution pension arrangements were substantially increased in April 2015. Data published by the Association of British Insurers after April 2015 show a reduction in the number of consumers purchasing annuities at retirement. There has been a notable increase in the number of members taking benefits entirely as cash lump sums with larger savings being accessed through drawdown policies.

Comments

The approach for calculating redress can be thought of as a comparison between a capitalised value of benefits which would have been paid from a defined benefit pension scheme to an expected value of savings in a defined contribution pension arrangement.

A consumer's choice of how to take their savings in a defined contribution pension arrangement could therefore be considered largely irrelevant in the redress calculation. It may be possible to argue that the greater flexibility available in a defined contribution pension arrangement offers some value; however, this is more likely to be considered an intangible benefit (ignoring a consumer's tax position).

The capitalised value of benefits in a defined benefit pension scheme will be calculated using an annuity; however, this does not imply that the consumer will use the savings in the defined contribution pension arrangement to purchase an annuity at retirement.

Recommendation

Our recommendation makes no assumption regarding the form of benefits from a defined contribution pension arrangement.

Calculation software

Overview

We are aware that there are a number of software packages available in the market to assist with the calculation of the amount of redress due. In general, we understand that these allow the user to update the underlying assumptions but any changes to the method of calculation, or any change to the assumptions required, would require some form of software development. The cost of any software development is likely to be ultimately borne by the firms who require the calculations to be carried out.

Comments

When considering our recommendation we have been mindful to balance the aim of having an approach which fully considers and reflects all factors that can be tailored to different circumstances and the desire to have a practical approach which minimises the requirement for software development.

If it was felt that the software could easily deal with more complex modelling than we have assumed for limited additional costs then alternative approaches could be considered.

Recommendation

Our recommendation proposes updates to how the existing assumptions are derived to implicitly allow for additional factors. We have recommended this approach as we understand that adjustments to the existing assumptions can be easily incorporated into the existing software, hence reducing development time and costs.

This approach is instead of making explicit assumptions which would incur software development costs as changes would have to made.

Factors to consider when setting an approach General market factors: benefit of hindsight

Changes in market conditions

Overview

Market conditions will have changed significantly since the original transfer value was paid and, in addition, the required rate of projection of defined contribution pension arrangement savings may also have changed. The chart on the right demonstrates the change in some selected market indices since January 2005 to demonstrate this volatility and the trends in the indices.

It is possible that some of the complaints from consumers are only arising because the investment returns, and therefore by extension the benefits from the defined contribution pension arrangement, are lower than they anticipated. These could be characterised as complaints due to the benefit of hindsight.

It is not within the scope of our report to consider the reason why the advice to transfer was inappropriate. It will be up to each firm, and potentially FOS to determine whether the advice to transfer was inappropriate, or not, and if redress is required. Therefore the following comments are intended as background information to demonstrate that calculating the redress required as at the time of the transfer would not meet the objective for the redress calculation.

Comments

An argument could be made for the redress calculation to use market conditions, and the relevant projection rates, as at the time of the transfer. Allowance could be made for actual experience since the date of transfer to the date of calculation, for example, to allow for actual rates of inflation when revaluing benefits in the defined benefit scheme as well as to allow for the current value of funds in the defined contribution pension arrangement. This type of approach would minimise the impact of changing market conditions on the projection of a consumer's benefits. It would also reduce any risk that the redress methodology could act as an underpin on investment returns.



Changes in selected market indices since January 2005

In practice, it will be more complicated to apply a methodology using historic market conditions. In addition, in the current climate using historic market conditions is likely to understate the redress that would be calculated using up to date market conditions – based on the general trend for yields to have reduced and the now lower defined contribution pension arrangement projection rates. [ctd]

Factors to consider when setting an approach General market factors: benefit of hindsight

Changes in market conditions (cont.)

An alternative argument would be that redress should allow for actual market conditions all the way up to the consumer's retirement age. Such an arrangement would be akin to a deferred annuity or income guarantee offered by the provider. We do not believe that it is appropriate to grant consumers the "benefit of hindsight" to this extent. It is our view that it is in the interest of all parties to resolve claims as quickly as possible once they are accepted. We also believe that it is reasonable for a methodology to assume that low risks and a fair level of investment return will be sought over the period up to retirement by the majority of consumers.

Recommendation

On balance, while we acknowledge that a small number of consumers may only be complaining because the benefits that are expected to be provided by the defined contribution arrangement are lower than originally anticipated, we do not believe that calculating redress at any time other than based on up to date market conditions would meet the objective of putting consumers back in the position they would have been had they not transferred.

In addition, the review of each individual case for compensation by firms, and by FOS as appropriate, will mean that redress is only paid where the advice was unsuitable rather than as a result of lower than expected returns.

Our recommendation therefore uses market conditions as at the date the redress is calculated rather than at the date of transfer.

Factors to consider when setting an approach General market factors: the PPF

The Pension Protection Fund ("PPF")

Overview

Since the existing approach was introduced the PPF has been established to protect the benefits of members of eligible defined benefit pension schemes with insufficient resources to pay benefits where the sponsoring employer becomes insolvent.

While the PPF does not provide a guarantee for full benefits, the guaranteed benefits for a consumer who has not yet reached the defined benefit pension scheme's normal retirement age are broadly 90% of the pension that would have been provided by the defined benefit scheme (although there are some exceptions). The guaranteed benefits are subject to an overall maximum pension and typically the pension increases before and after retirement granted by the PPF are different to the defined benefit pension scheme.

While the value of the benefits provided by the PPF will be lower than the value of the benefits from the defined benefit pension scheme (using like for like assumptions) there is no equivalent benefit guarantee for defined contribution pension arrangements.

Comments

The lack of a PPF equivalent for defined contribution pension arrangements implies that consumers are taking on more risk in a defined contribution pension arrangement than if they had not transferred their benefits, when this factor is considered in isolation. The Financial Services Compensation Scheme does offer protection in the event of a provider insolvency; however, this does not provide any minimum, or guaranteed, level of benefits.

To meet the objective of the redress calculation we believe that the methodology should recognise the value that the guarantee offers. We acknowledge that some members may have transferred prior to the PPF being established, and so were unaware of the protection now afforded; however, had the consumer not transferred, they would now be covered by the PPF (assuming the defined benefit pension scheme is eligible).

Making an allowance for the PPF could imply that a comparison between the following is necessary when assessing the amount of redress required:

1. The consumer's defined contribution pension arrangement savings;

- 2. The consumer's benefits which would have been paid by the defined benefit pension scheme; and
- 3. The PPF level of benefits for that consumer, assessed on a low risk basis.

This comparison could possibly use different assumptions to reflect the relative risks of each option.

However, this approach would be administratively complex, require multiple projections on different bases and make it difficult for consumers to understand how their redress is calculated and whether the amount offered is reasonable. In addition, we would expect that significant software development would be required in order to support these calculations.

Recommendation

Considering the above comments, our recommendation does not include calculating an amount of redress using the PPF level of benefits; however, we believe that it is important for the amount of redress to reflect the relative risk that the consumer would be exposed to in a defined benefit pension scheme compared to a defined contribution pension arrangement. As explained on pages 24 to 28 we have proposed changes to how the discount rates are set and these changes, in part, reflect the existence of the PPF.

The redress methodology does not aim to provide consumers with more than they would have been entitled to had they not transferred. Therefore, if practical, we recommend that if the consumer's defined benefit pension scheme has entered the PPF by the date the redress is calculated, the level of benefits that the consumer would have received upon entry into the PPF is reflected in the redress calculation rather than the consumer's original benefits from the defined benefit pension scheme. In this scenario a risk free basis might be used to calculate a capitalised value of the defined benefit pension scheme benefits.

In addition, our recommendation implicitly assumes that the consumer's benefits will be below the level of the PPF cap. Adjustments to the assumptions may be required where a consumer has larger benefits so that the amount of redress adequately reflects the balance of risk to the consumer of the defined benefit pension scheme to the defined contribution pension arrangement.

Factors to consider when setting an approach Assumptions

Pre-retirement discount rate

Overview

A pre-retirement discount rate is required to calculate the present value of the capitalised value of the benefits which would have been payable by the defined benefit pension scheme as at the date of the redress calculation.

Currently the pre-retirement discount rate is dependent on the number of years until the consumer's retirement age with the rate applied derived as a weighted average of the expected return on a portfolio of gilts and equities. The proportion held in equities is 50% when the consumer is 10 or more years from retirement, at which point it linearly decreases to assume the portfolio is entirely invested in gilts at the date the consumer retires.

Comments

We understand the intention of the pre-retirement discount rate was to mirror a typical investment strategy for a consumer with savings in a defined contribution pension arrangement.

An alternative approach could be to set assumptions with the intention of replicating the cost of purchasing deferred annuities. In practice, it would not be possible to exactly replicate the benefits which would have been paid to the consumer using deferred annuities given a number of factors including availability of annuities which match the defined benefit pension scheme's increases in payment and dependants' benefits. In current market conditions, and considering the typically longer duration of deferred liabilities, deferred annuity prices typically include significant margins to protect the provider against adverse future experience in addition to the margins for profit and to cover expenses. We conclude that it would not be appropriate for the methodology to try to replicate the pricing basis of a deferred annuity.

Therefore, our recommended methodology continues to be derived with reference to an investment strategy for a defined contribution pension arrangement. This approach reflects that the consumer's defined contribution pension arrangement will continue to be invested with the potential for future returns. It is then necessary to decide how the notional defined contribution pension arrangement investment strategy should be derived.

It would be possible to make reasonable arguments for a broad range of different strategies from:

- Low-risk to reflect that the member would not bear investment risk in a defined benefit scheme and, to some extent, the guarantee provided by the PPF to defined benefit scheme members; to
- Return seeking more akin to what we understand to be the general approach for the default funds adopted by pension providers for new members. Recognises that the consumer retains the ability to make returns on the investments. Assuming too low a pre-retirement discount rate increases the likelihood that future returns would be able to outperform the assumption and therefore risks consumers being over compensated.

The benefits of a member of a defined benefit pension scheme who has not yet retired are not risk free but they are lower risk than compared to a defined contribution pension arrangement. We do not believe that it would be appropriate for a redress amount to be overly reliant on future investment returns but it should not be risk free so that consumers are not able to adopt a low-risk investment strategy and receive higher benefits than they would have had they not transferred.

We have therefore recommended a pre-retirement discount rate that is based on what we understand to be a lower than average risk profile but not risk free as a balance to reflect the above comments and the benefit of the PPF that the consumer would have had had they still been in the defined benefit scheme.

A further consideration is whether to make an allowance for the expenses incurred in the consumer's defined contribution arrangement. The current approach allows for the actual expenses being incurred on the policy held at the point of the redress calculation.

Recommendation

We recommend a pre-retirement discount rate which is term dependent and based on the expected returns of a diversified portfolio of assets. For simplicity, rather than considering the returns available on possible individual asset classes, we have recommended assuming an investment strategy which targets the following returns:

- One half of the expected return on equities while the consumer is at least 5 years from retirement; and
- A linear decrease in the expected return over the final 5 years such that the consumer is expect to be targeting a return of one third of the expected return on equities at the point of retirement.

We recommend that the expected return on equities is calculated using the same method as the existing approach i.e. the expected return on equities allows for expected inflation, the current dividend yield and an allowance for future growth in dividends.

In addition, we recommend that an allowance for future charges should be made but at a fixed rate of 0.75% p.a. instead of the current approach of allowing for the actual charges currently being applied to an arrangement. We feel that this is a fairer approach as the charges that a consumer may be experiencing at the time of the redress calculation may not reflect those that are paid over the lifetime of their arrangement. We would expect consumers to be able to invest in low investment risk funds with charges of 0.75% p.a. or less. Consumers who invest in funds with higher fees would also typically expect a higher rate of return and we do not feel that it is suitable for the redress methodology to compensate consumers for taking this additional risk.

Based on the approaches we see adopted by pension providers for default investment strategies, we understand that investing in a diversified growth fund targeting a return of around two thirds of the expected return on equities could be considered a balanced / medium risk strategy which would be adopted by an average member. To reflect the balance of risk we have therefore recommended an expected return of one half of the expected return on equities, which reduces to an allowance of one third of the expected return at retirement date over the five years to retirement.

Illustrative impact of recommendation on the calculations

No allowance for charges

Example	Value of defined benefits at calc. date – current method	Value of defined benefits at calc. date– recommended method	% change
А	£51,500	£51,800	0.6%
В	£35,300	£42,400	20.1%

Charges assumed to be 0.5% p.a. for the current approach and 0.75% p.a. for the recommended approach

Example	Value of defined benefits at calc. date – current method	Value of defined benefits at calc. date– recommended method	% change
Α	£52,000	£52,500	1.0%
В	£38,900	£49,000	26.0%

Charges assumed to be 1.0% p.a. for the current approach and 0.75% p.a. for the recommended approach

Example	Value of defined benefits at calc. date – current method	Value of defined benefits at calc. date– recommended method	% change
Α	£52,500	£52,500	0.0%
В	£42,800	£49,000	14.5%

NB these figures only allow for changing the assumption in isolation. For ease of comparison, we have modelled the charges as an explicit deduction to the pre-retirement discount rate.

Post retirement discount rate

Overview

The post retirement discount rate is used to calculate the capitalised value at the point of retirement of the benefits the consumer would have received from the defined benefit pension scheme had they not transferred.

The post retirement discount rate is currently set equal to the yield on long dated gilts.

Comments

We understand the post retirement discount rate was originally intended to replicate providers' annuity pricing bases. The current approach is generally likely to understate the cost of buying an annuity at retirement for an individual; however, it can be difficult to replicate provider pricing as this can be influenced by factors other than market conditions.

The only way to accurately know the cost of an annuity at retirement would be to obtain quotes from providers. Specifying this requirement in a redress methodology would increase the complexity of the approach, likely resulting in delays in calculation, and require software development to incorporate an annuity rate as an input. In addition, it is unlikely to be possible to exactly replicate the benefits in the defined benefit pension scheme.

An alternative approach would be to use the approach taken by bases already in the market place. For example, Statutory Money Purchase Illustration (SMPI) projections and Transfer Value Analysis System (TVAS) calculations use a similar post retirement annuity rate. These approaches also look to replicate a risk free post retirement environment and hence these bases are a suitable starting point when considering what is appropriate for the redress methodology.

However, neither these methods, nor the current method, allow for the

market's expectations of changes in market conditions over time. In particular, for consumers who are currently a number of years from retirement it is important, in our opinion, that a methodology captures the information inherent in yield curves over the period that individual is expected to be drawing their benefits rather than focusing on estimates of conditions at the calculation date.

Once a member of a defined benefit pension scheme has reached the normal retirement age, the member is guaranteed to receive their benefits (up to the PPF cap), even if the sponsoring employer becomes insolvent, assuming the defined benefit scheme is eligible for the PPF. This position could support a rationale for adopting a post retirement discount rate which reflects a low risk approach.

A final consideration is as to any allowance for a pension commencement lump sum in the basis. We recommend making an allowance, as is discussed in more detail on page 34.

Examples are included below to demonstrate the sensitivity of the redress amount to changes in the post retirement discount rate.

Recommendation

We recommend that an assumption is set which aims to produce a low risk discount rate which reflects as best as possible annuity pricing in force at the time of the calculation and the market's expectations of future rates where relevant.

As discussed, we have considered a post retirement annuity rate based on that used in the SMPI and TVAS methodologies with no allowance for rounding of the discount rate. That is, the mean value of over 5 year index-linked government bonds assuming 5% inflation and 0% inflation, minus 0.5%. To confirm, the deduction of 0.5% is required by these methodologies and is not an adjustment proposed by PwC.

However, we feel that this would not fully reflect expectations of pricing for consumers of different ages and hence is not the best solution.

Post retirement discount rate (cont.)

To reflect annuity pricing, we recommend that assumptions are set with reference to a market derived yield curve plus/minus a margin. Swaps curves are generally seen as a good proxy for pricing as they are often the basis of insurer models. However, swaps curves are not reliably publically available and there are also questions about their suitability at longer terms, due to the relatively small number of swaps in force at these terms.

As such, our recommendation is to use the Government bond yield curve published by the Bank of England. This curve is freely and easily available and is calculated to a term of 40 years. Gilt yields can be shown to be a central element for pricing annuities over recent years and so we feel that this is an appropriate curve to use.

The margin should be set to reflect current pricing practices in the market relative to this curve. We have considered a deduction that we consider to be appropriate under current conditions to result in annuity rates consistent with those available in the market.

We also recommend that different rates are set for consumers with different expected terms to retirement and also different expected average terms of their post retirement benefits. In our calculations, we have considered the expected mean term of a consumer's post retirement benefits. This is the term after their retirement date which can be considered to be the weighted average point of their expected payments, after allowing for factors such as mortality and discounting. Whilst in theory this will be different for different consumers and at different calculation dates, for simplicity of calculation we have suggested that a single mean term is defined for a given retirement age.

There are some downsides with this approach, most importantly that insurer practices change regularly and so the margins applied to the gilts curve would have to be kept under regular review to reflect changes in pricing approach/competition/demand etc.

As such, for this methodology to be adopted we suggest that the FCA would have to regularly review the approach to ensure that it remained appropriate. An alternative would be to define a trigger method for updating the assumptions once particular metrics exceeded certain points.

For the purposes of this report, we have produced figures based on our interpretation of what appropriate rates may look like at the calculation date. We would expect the deduction to the gilts curve in particular to be reassessed before the methodology is put into use to reflect the potential impact of recent political and financial events. More details our current approach can be found later in this report.

Illustrative impact of recommendation on the calculation

Example	DB value at retirement – current	DB value at retirement – recommended	DB value at calc. date – current	DB value at calc. date – recommended	% change
А	£54,300	£62,400	£52,200	£60,000	14.9%
В	£85,200	£107,700	£40,800	£51,600	26.5%

NB these figures only allow for changing this assumption in isolation. In particular, they do not allow for the recommended adjustment for pension commencement lump sums that we discuss on page 34 but do allow for our recommended adjustment to the underlying gilts rates.

Inflation

Overview

The significance of the inflation assumption will vary for each individual depending upon the extent that their defined benefit pension scheme benefits were linked to inflation.

This assumption may be required to derive the assumed rate(s) of deferred revaluation beyond the date of calculation and /or the rate(s) of pension increases in payment (to calculate the capitalised value of the defined benefit scheme benefits). Assumptions may be required regarding the future rate of RPI and CPI. The current approaches to setting these assumptions are:

- *RPI* Bank of England implied inflation spot yield at a 25 year duration
- *CPI* 1% p.a. below the assumed rate of RPI

Comments

The current approach to setting the inflation assumptions does not reflect the term dependent nature of inflation expectations.

The Bank of England market implied inflation curve is a generally available, and widely used, measure of inflation and it would not be unreasonable to continue to derive the inflation assumptions from this source.

Consideration should also be given to whether it would be appropriate to adjust (downwards) the observed rate of market implied inflation for an inflation risk premium. An inflation risk premium would reflect market related forces, due to the scarcity of some securities by comparison with the demand for them, which are typically expected to overstate the rate of implied inflation. Any adjustment for an inflation risk premium would be subjective and if the rate of inflation is understated in the assumptions, consumers' benefits would not be protected against inflation. This differs from other circumstances where an inflation risk premium is used: for example, setting inflation assumptions for pension schemes in company accounts where assumptions can be adjusted at a future date. Hence we do not recommend the use of an inflation risk premium here. There is currently no way to derive a CPI assumption directly from market information and therefore we consider that it is still appropriate to set the assumption as a margin below RPI. Both RPI and CPI measure the rate of change of prices for goods and services – the differences are in the method of calculation and the basket of goods and services covered. Based on current market conditions, continuing to assume a difference of 1% p.a. between RPI and CPI is consistent with the long-term projections from the Office for Budget Responsibility in March 2015.

Recommendation

Our recommendation is to use the Bank of England implied inflation curve to set the RPI assumption but to better allow for the term dependent nature of inflation by using the spot rate on the curve consistent with the term to retirement and the expected mean term (which is weighted by payments) of the consumer's benefits. For consistency with the discount rate assumptions, we recommend adopting separate pre/post-retirement inflation assumptions, set relative to the terms assumed for the discount rates. We believe that this will reflect expectations of short term inflation better than the current method.

We also recommend continuing to assume that CPI will be 1% p.a. below the assumed rate of RPI.

These assumptions should be reviewed if there are changes in the future to the way RPI and CPI are calculated, for example a fundamental change in the basket of goods and services covered by either index, or a marked change in the observed RPI-CPI differential.

Illustrative impact of recommendation on the calculation

Example	DB value at calc. date– current	DB value at calc. date – recommended	% change
Α	£52,200	£50,900	-2.5%
В	£40,800	£37,300	-8.6%

NB these figures only allow for changing this assumption in isolation

Inflation (cont.)

Our recommendation is to use the Bank of England implied inflation curve to set the inflation assumptions. This curve is published to a term of 25 years but in some scenarios, particularly when considering post-retirement inflation, it may be necessary to make assumptions about RPI beyond this term.

To do this it will be necessary to extrapolate the curve beyond its published term. There are a number of techniques available to extrapolate such curves, each with their advantages and disadvantages. Some could be considered too complicated to apply in this situation, requiring specialist knowledge or further information. We have considered a number of simpler methods, as discussed below.

The first, and most simple, is to assume that the inflation spot rate at 25 years is assumed to remain unchanged at longer terms in the future. This method is easy to be apply but it could be argued that it ignores what information is available inherently in the curve and elsewhere. For example, if the inflation curve slopes downwards at longer terms one might reasonably expect this to continue, rather than suddenly flatten out.

An extension of this method is to assume that the inflation forward rates are assumed to be the same from the 25 year term onwards. This arguably may provide a better estimate of future inflation but it would require some relatively technical calculations to project the forward rates and convert these back to the spot rates required by the calculations.

A further, more practical, alternative is to use the information contained in the government bond curve used to set the post-retirement discount rate, which is published to terms of 40 years, by keeping the margin between this curve and the inflation curve constant after 25 years. The margin could be derived at the 25 year point only, or by taking the average margin over the five, say, years up to this point. This approach gives a more dynamic curve which reflects the expected changes in Government bond yields over longer terms, but does make the assumption that the relationship between inflation and gilts remains the same. The chart below illustrates that there is a potentially significant difference between rates derived using the first and last method discussed.



Our recommendation is to extrapolate the curve by assuming that the margin above the gilts curve remains constant from term 25 onwards. We suggest that the margin is derived as the average over the terms 21 years to 25 years to smooth out any discrepancies at the single term of 25 years.

We recommend this approach as it represents a balance between being relatively simple to apply whilst also giving results that are robust and match the market's views of long term inflation. By tracking the gilts curve, the method uses information that is available in the market to produce an estimate of future inflation.

At the very short end of the curve (<3 years), where spot rates are not published, we recommend that the 3 year rate is used for practical reasons.

Mortality

Overview

Assumptions are needed about the future life expectancy of an individual in order to calculate the expected value of their total defined benefit pension at their assumed retirement age. Mortality assumptions are split into two parts, a base table reflecting current mortality rates and an allowance for future improvements in mortality.

The current methodology uses 100% of S1NxA base tables with future improvements in line with CMI 2012 projections and a 1.25% p.a. / 1.00% p.a. long-term future improvement rate for males and females respectively.

Comments

The existing methodology uses gender specific mortality assumptions to calculate the capitalised value of the consumer's benefits which would have been paid by the defined benefit pension scheme. While there are actuarial arguments to support this approach, it does not reflect market practice for the pricing of insurance products, nor does it reflect how SMPI or TVAS projections are calculated.

An alternative to the current approach would be to calculate an annuity assuming the mortality of a male consumer and another assuming the mortality of a female consumer before taking an average of these. The average annuity would then be used to calculate the capitalised value of the consumer's defined benefit pension scheme benefits. The impact of adopting this approach would be to generally increase redress amounts for males and reduce amounts for females.

The mortality assumptions are based on unadjusted versions of standard mortality tables published by the CMI. It is common for mortality assumptions to reflect the characteristics of the pension scheme and/or the pension scheme members through some form of socio economic profiling. This would allow the assumptions to reflect the various factors which can affect life expectancy, including industry, lifestyle, access to health care and relative wealth. some form of socio economic profiling in order to derive a consumer specific assumption. A possible simplification of this approach would be to use the assumptions adopted for the latest triennial scheme funding valuation of the defined benefit pension scheme (which will be set as prudent assumptions); however, it may prove difficult to obtain this information and, even if the information can be obtained, the assumptions are unlikely to be directly comparable between consumers as the mortality assumptions adopted by defined benefit pension schemes will likely reflect their approach to scheme funding and the life expectancy for an average member of that pension scheme, rather than being specific to the consumer's life expectancy.

It is unlikely to be practical to require the redress calculations to carry out

An argument could also be made that the consumer may believe they will have a shorter than average life expectancy and therefore decide to transfer from the defined benefit scheme. As we have only been asked to consider situations where the transfer advice was unsuitable, we do not believe it would be appropriate to speculate over the reason for a consumer transferring.

Recommendation

We believe it continues to be appropriate to use standard mortality tables with no adjustment. We have considered the continued use of the SAPS tables, which are based on data from self administered pension schemes, rather than tables derived using life insurer data.

The consumers were former defined benefit pension scheme members, so it could be argued that they will exhibit mortality more in line with pension scheme members. However, the consumers are also currently holders of personal pensions and, the methodology assumes, will be looking to purchase annuities at retirement. As such, we suggest that it would be most appropriate to use tables derived using life insurer data.

Mortality (cont.)

The most recently published series of such tables are the PxAo8 tables and we recommend that these are adopted. Indeed, these tables form the basis of the incoming COBS rules for calculations performed after April 2017. We suggest that the mortality assumptions in this guidance are adopted in full as they will then provide a consistent approach across the methods and also because these mortality rates are made available in the public domain.

The COBS rules uses the CMI future improvements model with a 1.25% p.a. in long term rates, which we support as above. The guidance suggests using the CMI model based on data to the calculation year minus 2 (so for calculations in 2017 the 2015 model is used). Again we support this approach. However, we note that the calculations in this report use the 2015 CMI model for calculations made in 2016. This is because the 2014 CMI is never expected to be used for redress calculations so it seemed inappropriate to illustrate figures on this basis.

We recommend updating the methodology to use the latest published data, both for the base table and the allowance for future improvements, and adopting assumptions such that gender does not affect the annuity used to capitalise the value of the defined benefit pension scheme benefits. We understand that the software used to produce the calculations can be generally updated to reflect this without the need for further developments.

One further consideration is the assumed age difference between the consumer and their spouse. The current methodology assumes that the male partner is three years older than their spouse which is an assumption that is widely adopted within the pensions community and often supported by scheme data.

We have considered the option of removing the assumed age difference, partly in order to remove any implied discrimination between the sexes.

pension increase assumption of 3% p.a.		Female consumer	Average annuity
Recommended assumptions with 3 year age gap	26.45	27.45	26.95
As above but with no age difference	25.62	26.95	26.28
Assuming same sex marriages	25.08	27.40	26.24

Table shows annuities calculated using a discount rate of 2% n a and a

The table above shows joint life annuity factors calculated under three scenarios from age 65. The factors feed directly into the calculation of the value of the defined benefit pension amount and hence higher factors will lead to higher redress, all other things being equal.

As you can see, removing the age difference would generally reduce the redress paid slightly. However, we note that removing the age difference produces a very similar annuity to what you would have if you assumed same sex marriage in the calculation, averaging between genders.

Overall, we would be comfortable supporting the removal of the age difference.

The overall approach also reduces the amount of personal information required from the individual consumer.

Mortality (cont.)

Illustrative impact of recommendation on the calculation

As for the other assumptions, we have also illustrated the individual impact of updating these assumptions below.

Example	Value of DB benefits at calc. date – current method Male	Value of DB benefits at calc. date – current method Female	Value of DB benefits at calc. date – recommended method	% change for male	% change for female	
A £52,300 £52,400		£52,400	£52,700	0.8%	0.6%	
В	£40,900	£41,000	£41,700	2.0%	1.7%	

NB these figures only allow for changing this assumption in isolation

Pension commencement lump sum

Overview

The existing methodology makes no allowance for consumers to take up the option of a pension commencement lump sum.

Experience shows that the majority of members take the maximum, or close to the maximum, pension commencement lump sum at retirement. Typically where a pension from a defined benefit pension scheme can be commuted for a lump sum, the conversion terms do not reflect the full value of the pension given up if it were to be calculated on an annuity type actuarial basis. Therefore, making an allowance for consumers to take a pension commencement lump sum would typically reduce the level of redress.

Comments

If an allowance was made for members to take part of their benefits as a pension commencement lump sum, additional assumptions would be required regarding the take-up of the option, and the conversion terms.

Setting an assumed level of take-up of the option would be relatively straightforward – industry statistics suggest that the substantial majority of consumers will take the maximum pension commencement lump sum.

It would be more difficult to determine what conversion terms should be allowed for within the methodology. Theoretically these should be based on the value of benefits given up by the member (rarely are spouses' pensions affected) and therefore reflect the level of pension increases in payment and the age at which the benefits are taken. Experience suggests that whether a consumer takes a pension commencement lump sum is relatively independent of the terms offered; however, the terms could have a significant effect on the level of redress required.

Rather than specifying factors to use, it may be possible to collect data regarding the defined benefit pension scheme's commutation factors; however, collecting these factors could be difficult, factors are subject to change and we understand that significant software development would be required to accommodate an allowance for a pension commencement lump sum.

Recommendation

We believe that it would be appropriate to make an allowance for consumers to take a pension commencement lump sum. Rather than specifying additional commutation assumptions, we propose to adjust the post retirement discount rate to reflect that a pension commencement lump sum typically has a lower actuarial value than the amount of pension given up in a defined benefit pension scheme.

An addition of 1.6% p.a. to the post retirement discount rate for the proportion of benefits that are assumed to be taken as cash would reflect that typically in a defined benefit pension scheme, the value of cash is lower than the value of pension given up. To simplify the calculations, a single post retirement discount rate can be applied to the pension at retirement to capitalise the value of the benefits from the defined benefit pension scheme. This single post retirement discount rate should be taken to be 25% of the 'cash' discount rate and 75% of the 'pension' discount rate. This is an approximate allowance, intended to recognise a number of complexities in this situation. We do not consider that the likelihood of cash being taken can be ignored, and so we recommend a pragmatic adjustment.

Where a defined benefit pension scheme provides a pension commencement lump sum as an addition to pension, the post retirement discount rate (with no adjustment for a pension commencement lump sum) should be used in the annuity calculation.

Illustration impact of recommendation on calculation

Example	DB value at calc. date– current	DB value at calc. date – recommended	% change
Α	£52,200	£49,400	-5.4%
В	£40,800	£38,500	-5.6%
	1 11 0 1	• .1 • .• •	• • •

NB these figures only allow for changing this assumption in isolation

Proportion married at retirement

Overview

The current approach to allow for the probability of an individual being married at retirement is dependent on the individual's term to retirement. In our opinion this approach is complicated, and the underlying data used to derive this assumption is out of date. Data published by the Office for National Statistics shows a general decline in the proportion of the population who are married since the current assumption was set. In addition, we acknowledge changes to the definition of dependant in many pension schemes to broaden the number of people eligible for dependant benefits.

Comments

One approach would be to allow for the marital status of the consumer at the time the calculation is performed. However, for a consumer a number of years from retirement there is always the possibility of their marital status changing before they become eligible for benefits and so this approach, which results in a binary assumption, seems unreasonable as it could over or understate redress.

An alternative approach would be to adopt a single assumption about the percentage of individuals who are married at retirement – this would be easier to apply in performing redress calculations and is what is commonly used for other valuation purposes.

The redress calculation should reflect up to date population demographics. Publications released by the Office for National Statistics following the latest UK census implied around half of the UK population are married, with 70%-75% of the population aged 60-69 married or civil partnered.

In addition, changes to the definition of dependant in many pension scheme rules allow, in our experience, for a much wider definition of dependant than the traditional "legal spouse", including cohabiting partners and other dependants, for example, children. Acknowledgement also needs to be given to the introduction of same sex marriage in the UK in 2014.

A further point to consider in relation to this is whether to make allowance for a reduction to spouse benefits where the spouse is significantly younger than the pension scheme member, say over ten years. Some defined benefit pension schemes reduce the defined benefit pension payable to a spouse, where the age gap is large, to reflect the pension is expected to be paid over a longer period. It would be possible to allow for this in the calculations according to the defined benefit pension scheme rules, or it could be ignored on the grounds of it being a minor issue that it not applicable in most cases.

Recommendation

We recommend adopting a single assumption about the percentage of individuals who are married at retirement as this is a simple approach to implement and is understandable by all parties.

We recommend that an assumption of 85% married at retirement is used. This is based on the ONS statistics relating to the proportion married but with an addition to allow for other dependants and the looser definition of spouse typically allowed for in scheme rules.

We recommend no allowance is made for scenarios where the spouse is significantly younger than the individual on the basis that this is a minor issue that will not be applicable in most cases.

Proportion married at retirement (cont.)

Illustration impact of recommendation on the calculation

Example	Gender	Marital Status	DB value at calc. date– current	DB value at calc. date – recommended	% change
Α	Male	Married	£53,000	£52,300	-1.3%
Α	Male	Unmarried	£47,700	£52,300	9.6%
Α	Female	Married	£52,900	£52,300	-1.1%
Α	Female	Unmarried	£47,600	£52,300	9.9%
В	Male	Married	£40,900	£40,900	0.0%
В	Male	Unmarried	£38,800	£40,900	5.4%
В	Female	Married	£40,500	£40,900	1.0%
В	Female	Unmarried	£38,800	£40,900	5.4%

NB these figures only allow for changing this assumption in isolation.
Factors to be considered by a new methodology Methodology

Enhanced transfer values

Overview

We acknowledge that some consumers may have received an enhancement when their benefits were transferred from a defined benefit pension scheme to a defined contribution pension arrangement. There may be some cases where the enhancement was received as an addition to the transfer value and some cases where the enhancement was received as a cash lump sum.

Comments

The amount of any redress should reflect the value the consumer has received in respect of their benefits in the defined benefit pension scheme. This is regardless of whether the enhancement was paid as a cash lump sum or as an addition to the transfer value.

Recommendation

Where the enhancement was paid as a top-up to the transfer value, we expect that this will already be factored in when considering the current asset value of the defined contribution pension arrangement.

Where the enhancement was paid as a cash lump sum our recommendation is to allow for investment returns between the date the enhancement was paid and the date of calculation. Investment returns should be allowed for, regardless of how the cash lump sum was subsequently used, as in theory the consumer could have invested these funds to provide additional benefits. In addition, the enhancement was paid, and calculated, with reference to the benefits in the defined benefit pension scheme. We therefore recommend that the pre-retirement discount rate is used to project the amount of any cash enhancement from the date the enhancement was paid to the date of calculation.

Guaranteed annuity rates and other enhanced terms

Overview

An additional consideration is where the consumer transferred into an arrangement that offered guaranteed annuity rates ("GAR"s) or other similar enhanced terms that are not generally reflected in market pricing.

Comments

GARs usually offer guaranteed rates to convert investments into an annuity income at retirement, usually on terms that are more beneficial to consumers than are found in the market as a whole.

Where a consumer has access to a GAR, if this was not taken into account in the calculation of redress then there is a risk that the consumer could be over compensated as they may be able to convert their accumulated funds at a more preferential rate than was assumed in the calculation of the redress amount, resulting in a higher than expected income.

Recommendation

In such cases we recommend that enhanced terms are reflected in the calculation, as currently done, so that consumers are not overcompensated.

We recommend that where an individual has GARs in place the annuity rates offered are integrated into the overall valuation of the defined contribution benefit held by the consumer. This will require our recommended methodology to be appropriately extended to meet the facts of the specific situation.

We note that we would not expect GARs to be a common feature held by consumers requiring redress. In more recent years, policies with GARs have become fairly rare. We would also expect that a valuable GAR would be taken into account as part of the assessment of the advice provided, and would potentially reduce the likelihood that the advice was incorrect.

Factors to be considered by a new methodology Methodology

Frequency of update

Overview

The current assumptions methodology is typically updated annually on 1 July and published by FOS.

Comments

A number of different approaches could be considered including:

- 1. Linking the assumptions to generally available market statistics and the redress calculations use up to date market conditions. For practical reasons, it may be desirable to only update the assumptions on a monthly basis to reduce volatility;
- 2. As above; however, the assumptions could be updated annually rather than more frequently. This approach could be made to be consistent with the guidance set out in COBS 19.1; or
- 3. Fixed assumptions could be published on a regular basis and subject to review by the FCA.

Recommendation

Our assumptions are generally based on publicly available information and therefore firms should be able to derive their own assumptions. However, there are areas where we feel that there is a risk that, if conditions change considerably, the methodology may no longer be the most appropriate approach.

We therefore recommend that the FCA keep the methodology under regular review. This could be an annual exercise, or one done more frequently or after significant events which affect financial markets. In particular, the pricing of annuities in the future is a particular area of uncertainty given recent changes to legislation that suggests that annuities will sold in significantly lower quantities in the future.

well or because any change impact on the overall redre

Financial Conduct Authority PwC The FCA may also wish to publish assumptions at regular intervals. This would reduce the risk of users of the guidance mis-interpreting the assumptions and calculations being incorrect.

This approach may need to be reviewed in the future if the availability of any market statistics changes.

Other factors

The Pensions Review methodology, and subsequent implementations of it, also considers various other elements of the calculation. These include dealing with death in service benefits and factors such as contracting out of the State Earnings Related Pension Scheme / State Second Pension, among other things.

For the avoidance of doubt, where this report does not explicitly deal with a factor of the calculation this is because we feel that there is no reason to change the current approach, either because the current approach works well or because any changes in these areas would have an immaterial impact on the overall redress calculation.

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Recommended methodology

Overall approach

Recommended methodology

Our recommended methodology is based on the principle of comparing the capitalised value of the benefits the consumer would have received from the defined benefit pension scheme (had they not transferred) to the value of savings he or she holds in the defined contribution pension arrangement. We have made no assumption about how the consumer will use their savings in the defined contribution pension arrangement.

An outline of the steps required to calculate redress under our recommended methodology is as follows:

- 1. Calculate the amount of pension at the assumed retirement age that the consumer would have been entitled to from the defined benefit pension scheme had they not transferred. The rate of deferred revaluation should reflect the rules of the defined benefit pension scheme and use actual inflation experience up to the date of calculation (where relevant).
- 2. Calculate an annuity at retirement age based on the assumptions to calculate a capitalised value of the pension from the defined benefit pension scheme.
- 3. Calculate the current value of the figure calculated in step 2 by discounting the value using the appropriate pre-retirement discount rate.
- 4. Compare the value from step 3 to the value of the defined contribution pension arrangement savings (adjusted to reflect any guaranteed annuity rates etc.).
- 5. The difference between the values calculated in 3 and 4 is then the redress amount.

A more detailed guide to the steps required is set out in Appendix 3.

Further detail

- Where possible, the calculation should reflect the actual features of the defined benefit pension scheme the consumer was a member of, for example different tranches of pension increases, deferred revaluation etc.
- Firms should consider the extent to which any adjustments to the benefits from the defined benefit pension scheme should be allowed for in the redress calculations, for example, adjustments to benefits at some point after retirement to reflect a state pension offset; however, the methodology should not be manipulated so as to reduce the value of the benefits from the defined benefit pension scheme.
- A number of our recommended assumptions are based on publically available yield curves. These curves are published up to certain terms, for example 25 years. However, in the context of these calculations it may be necessary to use a rate beyond the ranges of the published curves. As discussed in the inflation section of our report, various methods are available to extrapolate yield curves beyond their calculated terms, with each method having advantages and disadvantages. We have recommended an approach which extrapolates the inflation curve by maintaining a constant margin above the gilts curve. There are more technically robust methods available but we feel that our approach is the simplest available and hence the most accessible to the majority of potential users. At the short end of the curve (terms less than 3 years) we suggest that the 3 year spot rate is used.

Assumptions

Assumption	Approach
Pre-retirement discount rate	Based on the expected returns of a diversified portfolio of assets with a target return of one half of the expected return on equities while the consumer is more than 5 years from retirement which linearly decreases to an expected return of one third of the expected return on equities at the point the consumer retires.
	Where the expected return on equity is defined as:
	(1 + RPI assumption)* (1+ dividend yield) * (1+ growth in dividends) – 1
	Prospective long term real dividend growth assumed to be 0.5% p.a. (this is expressed relative to RPI inflation). The dividend yield has been taken to be the dividend yield on the FTSE Actuaries All Share Index.
	The RPI assumption is taken as the annualised spot rate at the term consistent with the term to retirement of the consumer from the Bank of England implied inflation curve. Equity returns are calculated for each year to retirement, allowing for the above formula and the reducing percentage holding. The holding is expected to reduce linearly to 33% at time zero and the holding at the middle of each year is assumed in the calculation for the last 5 years to retirement. The initial discount rate is then derived as the single rate which gives the same return over the period to retirement as the product of the calculated annual rates.
	A deduction of 0.75% p.a. should then be made from the target return to allow for future expenses of investment before rounding the rate to the nearest 5 bps.
Pre-retirement RPI inflation	Based on the implied inflation spot rates published by the Bank of England at a term dependent on the individual's term to retirement.
	These rates are to be annualised by taking the exponential of the rate and subtracting one and then rounding to the nearest 5 bps.

Assumptions (cont.)

Approach
A term dependent rate should be used, based on gilts rates at a term consistent with the sum of the consumer's period to retirement and their expected mean retirement term. The latter can be derived based on the consumer's expected life expectancy and is weighted for payments in each year - our calculations have used a term of 16 years for consumers retiring at age 65 and we would suggest that terms of 19 and 22 years are used for consumers retirin at ages 60 and 55 respectively.
The discount rate is then calculated by first taking the annualised spot rate at the term consistent with the period to retirement for the consumer, adding one to this and then raising to the power of the number of years to retirement. Then the annualised spot rate at the term consistent with the period to retirement for the consumer plus 16 years is taken, one is added to this and the result raised to the power of the number of years to retirement plus 16. This figure is then divided by the figure calculated in the previous step with the result raised to the power of 1/16 and one subtracted to give the implied spot return from retirement to the average point of the consumer's liabilities.
This derived rate should be adjusted to reflect expectations of annuity pricing at the calculation date. This is an adjustment that could vary significantly with time and hence should be kept under review. We recommend that the rates published by the Bank of England in their UK nominal spot curve are used but that these rates are annualised by taking the exponential of the rate and subtracting one. For the purposes of the examples in this report, we have applied a deduction of 0.6% p.a. at all terms, being our best estimate of the adjustment currently required to mirror annuity pricing, under the constraints of a simple method.
The discount rate should also be adjusted to allow for a pension commencement lump sum. We recommend that a weighted discount rate is used which is based on 75% of the derived rate from above plus 25% of this rate plus a margin of 1.6% p.a. The final assumptions should be rounded to the nearest 5 bps.
Based on the implied inflation spot rates published by the Bank of England at a term dependent on the individual's term to retirement and their expected average retirement term. Where necessary, the curve should be extrapolated as discussed previously. These rates to be annualised by taking the exponential of the rate and subtracting one. The rate to be used should be calculated in a consistent manner to the post-retirement discount rate. That is by taking the ratio of the implied inflation over the period to retirement and over the period to retirement plus 16 year (for retirements at 65 – see above), with this rate being converted to a single spot rate for use in the calculations. The final assumptions should be rounded to the nearest 5 bps.

Assumptions (cont.)

Approach				
1% below the RPI assumption				
Based on the RPI and CPI assumptions, as appropriate, subject to caps and floors in the pension increases. To allow for caps it is acceptable to take the pension increase assumption as the minimum of the inflation assumption and the cap i.e. a "simple" cap. A similar approach should be used to allow for floors in the pension increases.				
Where fixed increases are granted, these rates should be used for the appropriate benefits.				
100% of the PxA08 series of table. Improvements in line with the model published by the CMI with effective year equal to the date of calculation minus 2, using a long term rate of 1.25%.				
We note that for the calculations used in this paper we have used the 2015 CMI model for calculations in 2016 which contradicts this approach. This is because the 2014 CMI model will not be used in any actual redress calculations and so it was felt to be more appropriate to demonstrate results using the 2015 model.				
Assessed on a gender neutral basis – i.e. taking 50% of an annuity based on the assumption that the member is male and 50% of an annuity assuming the member is female.				
85% married at retirement, irrespective of actual marital status.				
Spouses assumed to be the same age and of the opposite gender, irrespective of actual age difference and gender.				
In line with defined benefit pension scheme rules.				
Earliest age at which the consumer could have retired from the defined benefit pension scheme with no reduction to their benefits and without explicit permission from an employer. Where a consumer has benefits payable from different ages, the calculations should reflect the most valuable option to the consumer.				
In line with defined benefit pension scheme rules, for example a 5 year guarantee period is common.				
-				

Data requirements

For reference, the data that we would expect to be required to perform redress calculation under our recommended methodology is set out below.

Data required to calculate individual's expected benefits from the defined benefit pension scheme at retirement

- Date of birth
- Date of transfer
- Date of leaving scheme (if different to transfer date)
- Annual pension at date of leaving or date of transfer, split by tranches by rate of deferred revaluation and by pension increase rate
- Amount of any pension commencement lump sum payable in addition to pension
- Retirement ages
- Value of any enhancement paid to the transfer value where this was paid as cash

Data required relating to individual's savings in the defined contribution pension arrangements

- Value of savings in the defined contribution pension arrangement attributable to the transfer value contribution at date of calculation
- Details of any guaranteed annuity rates

Analysis of advantages and disadvantages

Our recommend methodology will impact a number of stakeholders. Below we set out what we consider will be the key "pros" and "cons" of our recommended methodology for consumers, firms and the FCA.

	Pros	Cons
Consumers	 Our recommended methodology is expected to result in higher redress payments in the majority of cases. In our view, the recommended methodology gives consumers a better chance of being put back in the position that they would have been in had they not transferred. The recommended methodology better reflects the current pensions market and the choices typically made by consumers. It does this whilst reflecting the transfer of risk that consumers incorrectly took on by transferring by stipulating a very low risk post retirement valuation basis. 	 The recommended methodology cannot accurately accommodate every individual circumstance. Revising the methodology will mean that redress amounts will be different compared to those calculated for consumers who have already received redress. Redress payments will, to a certain extent, be dependent on the date at which the calculation is performed (and hence when the complaint is identified).
Firms	 The proposed methodology requires similar data to be collected and a similar calculation to be performed as to the current methodology, so processes currently in place may not need to be changed entirely. A revised methodology gives firms clarity over the method that should be used to calculate redress. 	 The proposed methodology is expected to result in higher redress payments in the majority of cases. The proposed methodology still requires a specialised calculation to be performed that may need to be outsourced. There will be costs associated with making changes to the existin methodology.
FCA	 The proposed methodology reflects up to date practices in terms of setting mortality and other assumptions as well as reflecting the current pensions environment. In our view, the recommended methodology is consistent with the objective of the redress calculation. The proposed methodology is more robust and better suited to the "new normal" financial environment of low gilt yields and cautious markets. The recommended methodology better reflects the balance of risk in a defined contribution pension arrangement compared to a defined benefit pension scheme. 	 There will be a cost to the industry of implementing changes . Consideration is required as to whether it is necessary to publish updates to the assumptions or whether these should be linked to market indices and calculated by each firm.

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1 Worked examples

Worked examples

Worked examples: benefit of hindsight

The current methodology is based on assumptions that are set annually based on market conditions at the time, notably on the yield achievable on gilts. As market conditions have changed, the assumptions have changed in line with these movements which affects the amounts of redress being paid. In recent years, low gilt yields have increased the calculated values of the benefits that were given up in defined benefit pension schemes.

To illustrate this, we have looked at some example calculations, based on a single consumer with the following characteristics.

Date of birth	Retirement date	Transfer date	DB pension at transfer	Transfer value taken	Assumed value of transfer at 01/07/2011
01/07/1958	01/07/2023	01/07/2005	£7,500	£40,000	£50,000

We considered the amount of redress that the current methodology would provide to this member were the calculation to be have been performed on three different dates, 1 July 2011, 2013 and 2016 using the assumptions in force at those times. The aim is to see whether delaying the calculation has acted to the advantage or disadvantage of the consumer.

To do this we had to make a number of assumptions, the most significant being the expected investment profile, and hence growth, on the transfer value paid. We have provided two scenarios below to illustrate how this might affect the outcomes.

Example 1: assuming a 50:50 investment split from July 2011 onwards between equities and a fund providing 4% p.a. absolute growth

Calculation date:	01/07/2011	01/07/2013	01/07/2016
Value of DB at calc. date	63,500	88,400	114,500
Value of transfer value at calc. date	50,000	55,900	64,700
Redress at calc. date	13,500	32,500	49,800
Redress at 01/07/16	17,500	37,600	49,800

The final row of figures assumes that the redress amounts are invested in the same way as assumed for the transfer value up to 2016 to provide figures at a comparable point.

Worked examples: benefit of hindsight

Thus example 1 points to the assumptions in force in 2016 placing a considerably higher value on the defined benefit pension scheme benefits than those in force in previous years. This is a result of the unprecedented low levels of gilt yields and other market conditions at this date. Based on this, it is no surprise that the individual in example 1 would have benefited from a 2016 calculation date. Compensation calculated in 2013, even after investment returns to 2016, would have been less beneficial. The effect would be more marked if the calculation had been in 2011.

If, on the other hand, the individual had made a substantial investment in gilts from 2011 onwards, the effect would have been largely negated. Example 2 illustrates this. At each calculation date, the value put on the defined benefit pension scheme benefits is the same as in example 1, but the outturns, in terms of redress value at 1 July 2016, in the case of the 2011 and 2013 calculations with roll up to 2016, are more uniform.

Example 2: assuming a 50:50 investment split between equities, gilts

Calculation date:	01/07/2011	01/07/2013	01/07/2016
Value of DB at calc. date	63,500	88,400	114,500
Value of transfer value at calc. date	50,000	59,300	79,900
Redress at calc. date	13,500	29,200	34,600
Redress at 01/07/16	21,600	39,300	34,600

The examples demonstrate that the current methodology, as operated in 2016, reflects the current low yields on gilts, irrespective of the way the individual has invested assets in his defined contribution pension arrangements.

For people who had earlier calculations, the position varies. Those who have invested in longer dated gilts would have been little affected by the earlier date of calculation. But individuals will have invested in different ways, and so for many, a 2016 calculation would delivered a better outturn than an earlier calculation.

To this extent, the current methodology delivers the benefit of hindsight at present. This is because of historically low yields. The position may change in the future.

Worked examples: Current methodology compared to recommended methodology

We have included some worked examples below to demonstrate the impact of moving to our recommended methodology on some example members. The details of these members are included on the following slides, but the key difference is the period from calculation date to assumed date of retirement, with example 1 showing someone retiring now and example 5 showing someone a significant period from retirement age. These examples are for illustrative purposes only and should not be relied upon to demonstrate expected outcomes in other cases. Actual redress amounts will be sensitive to scheme specific factors such as rates of pension increases, retirement date etc. as well as personal factors relating to the consumers.

We have used the terms "DB" and "DC" in the tables below to mean defined benefit and defined contribution respectively. These examples have been prepared assuming that charges of 75 bps are allowed for pre-retirement in all scenarios.

	DB pension at retirement	Value of DB at	Value of DB at calc.	Value of DC at calc.	Redress amount
	(£ p.a.)	retirement (£)	date (£)	date (£)	(£)
Current methodology	2,000	51,600	51,600	32,400	19,300
Recommended methodology	2,000	56,800	56,800	32,400	24,400
Percentage change			10.1%		

Example 1 – member retiring now

Example 2 – member 2 years from retirement

	DB pension at retirement (£ p.a.)	Value of DB at retirement (£)	Value of DB at calc. date (£)	Value of DC at calc. date (£)	Redress amount (£)
Current methodology	2,100	54,300	52,200	29,100	23,100
Recommended methodology	2,000	57,800	56,000	29,100	26,900
Percentage change			7.3%		

Example 3 – member 7 years from retirement

	DB pension at retirement (£ p.a.)	Value of DB at retirement (£)	Value of DB at calc. date (£)	Value of DC at calc. date (£)	Redress amount (£)
Current methodology	2,300	61,500	51,300	25,900	25,400
Recommended methodology	2,200	62,700	54,000	25,900	28,100
Percentage change			5.3%		

Worked examples: Current methodology compared to recommended methodology

(cont.)

Example 4 – member 15 years from retirement

	DB pension at retirement (£ p.a.)	Value of DB at retirement (£)	Value of DB at calc. date (£)	Value of DC at calc. date (£)	Redress amount (£)
Current methodology	2,800	75,200	44,600	19,400	25,100
Recommended methodology	2,600	79,400	53,600	19,400	34,200
Percentage change			20.2%		

Example 5 – member 20 years from retirement

	DB pension at retirement (£ p.a.)	Value of DB at retirement (£)	Value of DB at calc. date (£)	Value of DC at calc. date (£)	Redress amount (£)
Current methodology	3,100	85,200	40,800	16,200	24,600
Recommended methodology	3,100	93,500	53,800	16,200	37,600
Percentage change			31.9%		

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2 Assumptions used in worked examples

Assumptions used in worked examples

Assumptions used in worked examples

Example 1	Current	Proposed	Example 2	Current	Proposed
Date of calculation	1 July 2016	1 July 2016	Date of calculation	1 July 2016	1 July 2016
Date of birth	1 July 1951	1 July 1951	Date of birth	1 July 1953	1 July 1953
Retirement age	65	65	Retirement age	65	65
Date of transfer	1 July 2005	1 July 2005	Date of transfer	1 July 2005	1 July 2005
DB pension at date of transfer	£1,500	£1,500	DB pension at date of transfer	£1,500	£1,500
DC fund at date of calculation	£32,400	£32,400	DC fund at date of calculation	£29,100	£29,100
Pre-retirement discount rate	n/a	n/a	Pre-retirement discount rate	1.95% p.a.	1.65% p.a.
Post-retirement discount rate	2.25% p.a.	1.40% p.a.	Post-retirement discount rate	2.25% p.a.	1.70% p.a.
Pre-retirement inflation	n/a	n/a	Pre-retirement inflation	2.25% p.a.	1.35% p.a.
Post-retirement inflation	2.25% p.a.	2.00% p.a.	Post-retirement inflation	2.25% p.a.	2.20% p.a.

NB. The figures in the worked examples make an allowance of 75 bps for pre-retirement expenses on both the current and proposed basis. This is for ease of comparison as the current basis allows for actual charges which will vary between consumers.

The post-retirement discount rate quoted above under the proposed methodology includes both the reduction from the gilt rates of 0.6% recommended and the recommended allowance for taking a pension commencement lump sum.

Assumptions used in worked examples

Example 3	Current	Proposed	Example 4	Current	Proposed
Date of calculation	1 July 2016	1 July 2016	Date of calculation	1 July 2016	1 July 2016
Date of birth	1 July 1958	1 July 1958	Date of birth	1 July 1966	1 July 1966
Retirement age	65	65	Retirement age	65	65
Date of transfer	1 July 2005	1 July 2005	Date of transfer	1 July 2005	1 July 2005
DB pension at date of transfer	£1,500	£1,500	DB pension at date of transfer	£1,500	£1,500
DC fund at date of calculation	£25,900	£25,900	DC fund at date of calculation	£19,400	£19,400
Pre-retirement discount rate	2.65% p.a.	2.15% p.a.	Pre-retirement discount rate	3.55% p.a.	2.65% p.a.
Post-retirement discount rate	2.25% p.a.	2.20% p.a.	Post-retirement discount rate	2.25% p.a.	1.80% p.a.
Pre-retirement inflation	2.25% p.a.	1.40% p.a.	Pre-retirement inflation	2.25% p.a.	1.95% p.a.
Post-retirement inflation	2.25% p.a.	2.65% p.a.	Post-retirement inflation	2.25% p.a.	2.35% p.a.

NB. The figures in the worked examples make an allowance of 75 bps for pre-retirement expenses on both the current and proposed basis. This is for ease of comparison as the current basis allows for actual charges which will vary between consumers.

The post-retirement discount rate quoted above under the proposed methodology includes both the reduction from the gilt rates of 0.6% recommended and the recommended allowance for taking a pension commencement lump sum.

Assumptions used in worked examples

Example 5	Current	Proposed
Date of calculation	1 July 2016	1 July 2016
Date of birth	1 July 1971	1 July 1971
Retirement age	65	65
Date of transfer	1 July 2005	1 July 2005
DB pension at date of transfer	£1,500	£1,500
DC fund at date of calculation	£16,200	£16,200
Pre-retirement discount rate	3.75% p.a.	2.80% p.a.
Post-retirement discount rate	2.25% p.a.	1.15% p.a.
Pre-retirement inflation	2.25% p.a.	2.20% p.a.
Post-retirement inflation	2.25% p.a.	1.70% p.a.

NB. The figures in the worked examples make an allowance of 75 bps for pre-retirement expenses on both the current and proposed basis. This is for ease of comparison as the current basis allows for actual charges which will vary between consumers.

The post-retirement discount rate quoted above under the proposed methodology includes both the reduction from the gilt rates of 0.6% recommended and the recommended allowance for taking a pension commencement lump sum.

Step by step guide to apply recommended methodology

Step by step guide to apply recommended methodology

Below is a summary of how our recommended methodology would be applied in practice. This summary is intended for illustrative purposes and does not override any similar or subsequent guidance published by the FCA.

- 1. Calculate value of individual's defined benefit pension entitlement at retirement, had they not transferred
- This should be calculated as at their assumed retirement age i.e. at the earliest date they can retire on an unreduced pension ("DoR").
- Obtain the individual's annual pension at date of leaving or date of transfer, split by tranches by rate of deferred revaluation (and by pension increase rate for ease of calculation in step 2).
- Revalue each tranche of pension from date of leaving or date of transfer to DoR using revaluation rates reflecting the rules of the defined benefit scheme.
 - Use known inflation rates between date of leaving and the date of calculation.
 - Obtain inflation rate assumption based on the individual's term to retirement and apply this to project the deferred pension from date of calculation to DoR.
 - The projection period should allow for the actual number of deferred revaluation increases an individual would have received (normally the complete number of years between date of leaving and DoR).
- 2. Calculate total value of the defined benefit entitlement at DoR
- The defined benefit pension as at DoR is already split into tranches based on the relevant pension increase rate (tranches were separated in step 1 bullet point 2).
- Calculate male and female annuity factors for each tranche of pension using the respective mortality assumptions set out on page 31 and the individual's date of birth.
 - Use scheme specific pension increases defined in the scheme rules and the RPI or CPI inflation assumption set out on page 29.
 - Use the post-retirement discount rate assumption set out on page 28.
 - Inflation and post-retirement discount rates may be supplied separately by the FCA.
 - Annuity factors should allow for a reversionary spouse's pension, the proportion married assumption, any guarantee period and assume pension
 payments are made monthly. It should be assumed that spouses are the same age as the consumer.
- Calculate an average of the male and female annuity factor for each tranche of pension.
- Multiply the average annuity factors by each of the corresponding pension tranche amounts. Sum these over each tranche to get the value of the individual's defined benefit entitlement at DoR.

Step by step guide to apply recommended methodology

3. Calculate the current value of the figure calculated in step 2

- Obtain the pre-retirement discount rate from assumptions guidance based on the individual's whole number of years to retirement.
- Divide the figure calculated at the end of step 2 by (1 + pre-retirement discount rate)^x where x is the complete number of years and months between the date of calculation and DoR.
- 4. Compare the value from step 3 to the value of the defined contribution pension arrangement savings
- Adjust defined contribution pension arrangement savings to reflect annual management charges by adding back in charges that have been paid from the individual's savings. If this data is not available an approximate approach is acceptable.
- Adjust defined contribution pension arrangement savings to reflect any guaranteed annuity rates an approximate approach is acceptable.
- 5. Calculate redress amount
- Where the value calculated in step 3 is greater than the value calculated in step 4, the difference between these values is then the redress amount.