Considerations for future pensions provision for Clergy in the Church of England

March 2017
Introduction

• There are increasing pressures on the financing of the current defined benefit Clergy Pension Scheme. This paper looks at two alternative designs which could be considered in the event that there were a decision to move away from the current defined benefit design. We understand that the aim is to fix on a single “plan B” alternative to the current design, so that when a decision is taken about the future scheme design it is a decision between the current design and a single alternative.

• The two designs considered are
  • Defined contribution
  • Hybrid

• The structure of this paper is that each of these designs is described in some detail and then a comparison is drawn between them, and also with the current defined benefit scheme.

• Although this paper includes numeric analysis as part of the comparisons, we think the key difference between the two designs is the philosophical approach.

• Defined contribution requires the individual to take responsibility for planning their own retirement. The design of the scheme, and the communication, can help the individual with their decision making, but the consequences all fall to the individual.

• Hybrid (more like defined benefit) aims to provide a benefit that meets the financial needs of the retired clergy, meaning that they do not need to plan for themselves. The hybrid design presented here is identical to that in our presentation in June 2016.
Contribution design

- DB schemes provide for an equal accrual of benefit for each year of service, irrespective of the age of the member. However, the contribution required to provide such a benefit rises with the age of the member, because contributions for a young member have a long period over which to earn investment return, whereas for an older member the amount of investment return they will earn is less because the period is shorter.
- For the Hybrid design, we have targeted a defined benefit accrual which means that we retain this feature of the existing defined benefit scheme.
- For the DC design, to reproduce the “shape” of the current DB across the members we would need to have a contribution rate that increases with age, so that a 50 year old gets a significantly bigger contribution than a 25 year old. In the past, many DC schemes were established with contribution rates that were age related. However, this design proved unsustainable in practice, as it was inevitably seen as unfair to younger members, and indeed was vulnerable to challenge under age discrimination legislation. We have therefore used a level contribution rate for DC members, irrespective of age. This inevitably involves a shift in the shape of the benefit relative to the current DB system, so if the overall cost is unchanged then young members will benefit at the expense of older members.
Contribution levels

- We have assumed that the broad aim of an alternative scheme would be to provide benefits broadly similar to those provided by the current DB scheme. We have therefore looked at the cost of these benefits in two ways – firstly the forward looking actuarial valuation, and secondly looking at past history of investment returns.

Current costs of accrual (based on initial 2015 valuation results):

- 27.8% of pensionable stipends in respect of ongoing accrual, comprising:
  - 1.5% allowance for expenses of running the scheme
  - 1.3% death-in-service lump sums and pensions
  - 1.9% ill health pensions
  - 23.1% retirement (early, late or at normal retirement) pensions

- 12.1% of pensionable stipends in respect of funding shortfall

- The cost of future service accrual estimated at the 2015 valuation is 23.1% for retirement benefits. This incorporates an element of prudence as required by the UK funding regime. Also, prospective investment returns are low by historic standards (eg real returns on long term gilts are negative) which acts to increase the cost of accrual.
Contribution levels

Historic approach

- We have looked at what the cost of providing the current level of benefits might have been historically. To do this we have used actual returns and economic conditions over the period from 1931 to 2015. We have then looked at what average contribution would have been required over that period to provide the current level of benefits, which is 16% - ie if a level 16% had been paid throughout that period then the scheme would have had neither surplus nor deficit at the end of the period.

- In these calculations we have assumed an average service period of 25 years at retirement, and we have allowed for current mortality rates rather than actual historic mortality rates. The cost of accrual for members with longer service at retirement would be less than the 16%, and for members with shorter service would be more.

- In the future designs we have used a contribution rate of 16% for the DC design, and a central contribution rate of 16% for the Hybrid design.
Comparisons

Modelling approach

- We have modelled the straw man hybrid pension design against DC design, and also against the existing DB scheme, using actual returns and economic conditions over the period from 1931 to 2015.
- For all the modelling we have used a level 16% contribution throughout for the DC and Hybrid designs, for both short and long time periods. This enables a like for like comparison.
- There are a number of significant simplifications and approximations in the modelling, but these are not such as to invalidate the broad comparison between the three designs.
Defined contribution design
Defined contribution

- A defined contribution pension scheme is just a savings plan with a specific purpose; to provide an income in retirement.
- There are some key decisions that are needed in the design of a DC scheme:
  - Contributions
  - Form of benefits
  - Investment strategy
  - Communication
Contributions

- The employer pays a fixed percentage of pay into an individual account for each member, which builds up during their working life. In retirement the member uses the money in their account to provide their retirement income.

- If the aim is to enable full service clergy to build up an account which would provide a similar level of retirement income to the present DB scheme then a significant contribution is required. We have used 16%, as for the DB and hybrid modelling to give a like-for-like comparison of the different designs.

- In practice very few DC schemes have a fixed contribution rate as high as this, because it is usual to allow members some flexibility in the contributions. Thus a generous DC scheme might have a basic employer contribution of 10%, and then the employer matches member contributions up to a further 5% from each side, so that if the member pays 5% the employer pays 15%. This gives members some flexibility to take account of their individual circumstances and also to flex contributions in the light of the progress of their pensions savings.
Form of benefit

- Traditionally the way the retirement income was provided was for the member to use the accumulated funds to buy an annuity at the time of retirement, and indeed prior to April 2015 this was effectively compulsory. The annuity has two particular advantages
  - It continues to pay an income as long as the member is alive to need it (and can continue to spouse or dependant if required); and
  - It gives certainty of the level of income.

- However, a major disadvantage of annuities is that the level of a member’s retirement income depends on the annuity prices at the time they retire. If annuities are expensive (which they are when interest rates are low) then the member can be locked into a low level of income for the entirety of their retirement.

- Therefore since April 2015 members have been allowed not to purchase an annuity but rather to take their retirement income by drawing down on their accumulated funds (“drawdown”). Since then, most retiring members have elected to take their benefits through drawdown, rather than buying an annuity. This enables them to keep a more balanced range of investments, which are likely to give a higher rate of return than is given by an annuity.
Investment strategy

- The design of the investment strategy of a modern DC scheme starts with a recognition that most members will not want to choose their own investment strategy but will simply go into the default strategy.
- The default investment strategy therefore needs to be suitable for the majority of members.
- This default investment strategy is an inevitable compromise between return and risk. If the investments are all held in low risk assets such as gilts, then the return will be low, and so the eventual pension poor. If the investments are all held in assets that are targeting a high return (such as equities) then they are exposed to substantial risk of falls in capital value.
- The best approach is to vary the investments over a member’s lifetime to address the most important risks at each stage in their life.
- An appropriate investment “glidepath”, targeting drawdown, is shown on the next page.
- Note that the investment funds are described by their purpose, not by the specific types of investment held. This is helpful for communication, and also enables trustees to change the investments as markets develop and new ideas come along.
- Also, the strategy goes through retirement, rather than having a sharp change of strategy at retirement.
- The strategy in later years is currently hypothetical – as drawdown has only been available for recent retirees there is currently no-one taking income drawdown in their eighties or nineties. We would expect significant developments in the next few years on the best way to meet the needs of such people.
‘Stay invested’ or drawdown glidepath strategy

'Stay invested' or drawdown glidepath - through retirement

<table>
<thead>
<tr>
<th>Age</th>
<th>Short Inflation Fund</th>
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<th>Managed Income Fund</th>
<th>Capital Stability Fund</th>
<th>Growth Fund</th>
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<td>85</td>
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</table>
Potential results

- Although the investment strategy should be designed to minimise the risks, the dependence on investment return means that there is still substantial variation in outcomes, over time.

- This is illustrated on the next page, which shows the benefits that would have been delivered to members retiring under a DC scheme over the last 50 years. We have looked at a member retiring after 25 years, with a 16% contribution, throughout, taking their retirement income by way of drawdown.

- The range of outcomes is very wide. However, it is important to remember that the State Pension is also an important element of retirement income, and is much more stable.

- It is also important to note that the outcome is driven by the generality of investment markets, so all members in the same cohort will get similar outcomes – people who live during a period of strong investment returns will all get good pensions, while those who live during a period of poor investment returns will get poor outcomes. This does mean that for any individual member their expected retirement income does get more certain as they approach retirement, which is important in enabling them to plan for their retirement.
Range of outcomes

Pension as a percentage of final pay

- DB (Median = 30%)
- DC Lifestyle (Median = 32%)

Retirement year (1955-2010)
Communication

- This wide variation in outcomes means that communication is vitally important, particularly as members get closer to retirement and their financial position becomes more definite. If the expected retirement pension is not what they would like, then there are two main options available to members approaching retirement, either individually or in combination.
  - They can choose to retire later. This is a very powerful lever, as it both increases the member’s pot and reduces the number of payments to be drawn from it - for each year’s deferment of retirement the pot gets an extra year’s contributions and investment return, and needs to produce one year’s less pension.
  - They can choose to accept a lower standard of living in retirement.
Hybrid design
Straw man hybrid design – overall structure

- Pension schemes are very long term financial institutions, which will be exposed to a very wide variety of financial conditions over time. With traditional DB or DC designs the impact of these variations fall exclusively on either the employer or the members. The hybrid design has a target level of benefits (like the DB scheme) but also a target level of employer contributions (like a DC scheme). There are then a number of levers that are used to adjust benefits and contributions in response to financial conditions to spread the risks between employers and members and also across generations of members. These levers are:
  - Employer contributions, so that the employers contribute more in years when low yields make benefits expensive (as at present) and less in years when yields are higher and so benefits are cheaper
  - Benefit accrual rates, so that in years when benefits are exceptionally expensive (as they are at present) then members accrue at a lower rate than in years when benefits are cheaper
  - Pension increases, so that pensions are increased at more than RPI in good times but less than RPI in bad times
  - Benefit cuts, so that in seriously adverse conditions benefits are actually reduced
Straw man hybrid design – target benefits

Target benefits

- The target benefits which the scheme aims to provide are:
  - Members accrue 1/83rd of National Minimum Stipend for each year of service
  - Normal retirement age is 68
  - For members who leave service, benefits are increased in line with RPI between the date of leaving and retirement
  - Members can take early or late retirement on cost neutral terms

- There is also an aspiration that benefits should be increased, ideally in line with RPI, and the contributions are set in line with this aspiration. However, the actual rate of increase is determined by market conditions and the investment performance of the scheme.

Legal structure

- The legal structure of the scheme would be that of a defined benefit scheme, but with the defined benefit being set at a level well below the target benefit, so that the risk of a statutory deficit is very low.

- An example of the bare minimum benefits that could be provided under DB regulations could be:
  - A basic level of Career Average Earnings pension
  - No revaluation between service and retirement date
  - Statutory increases on pensions in payment
Straw man hybrid design – contribution and benefit accrual adjustments

- A standard employer contribution would be set at 20% of National Pensionable Stipend.
- An assessment would be carried out each year of the cost of providing the target accrual for that year, and the employer contribution set accordingly. That cost would be expressed as a percentage of National Pensionable Stipend. If that cost is below 20% then the actual employer contribution would be reduced to that cost, subject to a minimum employer contribution of 12% of National Pensionable Stipend.
- In practice, the simplest way to operate this would be to give a rebate on the standard employer contributions.
- If the employer contributions fall within the 12-20% range then members would accrue benefits at the target rate of 1/83rds. If the employer contribution rate is constrained by either the minimum or maximum then the accrual rate is adjusted to bring the cost of accrual in line with the actual contributions being paid by the employers. For example, if the contribution is constrained to the maximum of 20% then the accrual rate would be reduced to bring the expected cost of accrual back to 20%.
Straw man hybrid design – adjustments to accumulated benefits

- Each year a valuation of the scheme is carried out to determine whether there is a surplus or deficit against the accrued benefits, with allowance for revaluation in deferment and pension increases in line with RPI. As the contributions are set to fund for RPI pension increases, then surpluses or deficits at the valuations should occur with approximately the same frequency. The valuation results are then reflected in benefits as follows:

  1. If there is a surplus then increases of X% (where X is greater than RPI, subject to a maximum of 5% greater than RPI) are applied across all pensions and all members, both pre and post retirement (i.e. pension increases in payment, deferred revaluations and active revaluations are all affected), with X set to use up all the surplus over the future expected lifetime of the members.

  2. If there is a deficit then two levers may be applied. Firstly, pension increases may be cut, i.e. increases of X% (where X is less than RPI, subject to a minimum of zero) are applied across all pensions and all members, both pre and post retirement (i.e. pension increases in payment, deferred revaluations and active revaluations are all affected), with X set to use up all the deficit over the future expected lifetime of the members. If this lever is insufficient, i.e. setting X to zero does not eliminate the deficit, then the second lever is to apply a face value cut to all benefits using a tapered adjustment, with higher cuts at younger ages to provide more certainty for pensioners and those approaching retirement.
How the hybrid benefits build up
Illustrative benefit comparison

- To show how the benefits might be described to members, and how the hybrid scheme compares with a current defined benefit scheme from the member perspective, we have compared the way benefits build up under the hybrid scheme with the way they build up under the current DB scheme.
- For illustration we have used a member who joined the scheme in 2011 aged 45.
### Benefit build up – Current design

<table>
<thead>
<tr>
<th></th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
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</thead>
<tbody>
<tr>
<td>National Minimum</td>
<td>£21,370 a year</td>
<td>£21,900 a year</td>
<td>£22,340 a year</td>
<td>£22,790 a year</td>
<td>£23,250 a year</td>
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<td>Stipend</td>
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<td>Pension income</td>
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<tr>
<td>Additional target</td>
<td>£257.47 a year</td>
<td>£263.86 a year</td>
<td>£269.16 a year</td>
<td>£274.58 a year</td>
<td>£280.12 a year</td>
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<tr>
<td>pension earned this</td>
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<td>year</td>
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<tr>
<td>Stipend uplift to</td>
<td>£0 a year</td>
<td>£7.98 a year</td>
<td>£14.29 a year</td>
<td>£13.00 a year</td>
<td>£17.61 a year</td>
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<tr>
<td>pension</td>
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<tr>
<td>Total target pension</td>
<td>£257.47 a year</td>
<td>£529.31 a year</td>
<td>£812.75 a year</td>
<td>£1,100.34 a year</td>
<td>£1,398.06 a year</td>
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<td>built up to date</td>
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</table>

This pension will attract annual increases at a rate matching inflation (RPI) up to 3.5% each year. In addition a lump sum of 3 times pension at retirement is payable on retirement.
## Benefit build up – Hybrid design

<table>
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<tr>
<th></th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
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<tbody>
<tr>
<td>National Minimum Stipend</td>
<td>£21,370 a year</td>
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<td>£22,790 a year</td>
<td>£23,250 a year</td>
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<tr>
<td><strong>Target pension income</strong></td>
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<tr>
<td>Additional target pension earned this year</td>
<td>£257.47 a year</td>
<td>£263.86 a year</td>
<td>£269.16 a year</td>
<td>£274.58 a year</td>
<td>£280.12 a year</td>
</tr>
<tr>
<td>Adjustment to target pension in year</td>
<td>£90.49 a year</td>
<td>(£4.05) a year</td>
<td>(£0.45) a year</td>
<td>£23.23 a year</td>
<td>(£51.44) a year</td>
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<tr>
<td>Total target pension built up to date</td>
<td>£347.96 a year</td>
<td>£607.77 a year</td>
<td>£876.48 a year</td>
<td>£1,174.29 a year</td>
<td>£1,402.97 a year</td>
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</table>

This pension is targeted to attract annual increases at a rate matching inflation (RPI) each year. In addition a lump sum of 3 times target pension at retirement is payable on retirement.

The Target Pension Plan does not guarantee the benefits shown above – they are just targets. If performance of the Plan is better than expected, higher benefits can be paid. If performance is worse than expected, lower increases than RPI may be awarded to restore Plan funding. In extreme situations, the face value of benefits may be reduced to restore the Plan funding.
Comparison
Straw man hybrid design - modelling

- We have modelled the straw man hybrid pension design against DC design, and also against the existing DB scheme, using actual returns and economic conditions over the period from 1931 to 2015.
- For modelling the hybrid design benefits we have simplified the modelling by assuming a level 16% contributions throughout, rather than the 12-20% range actually proposed. This simplification means that the variation in benefits over time is slightly overstated in the modelling.
- For the DC comparison we have also used the 16% contribution rate, as shown earlier.
- We have shown first the comparison for a member retiring with 25 years service, as the contribution of 16% was the average cost for such members, so this gives the most direct comparison between the three designs. We have also done the comparison for a member with 40 years service, and a member with 10 years service. For these members the average actual cost of the DB scheme would have been different from 16% (less than 16% for the 40 year member and more than 16% for the 10 year member).
- There are a number of significant simplifications and approximations in the modelling, but these are not such as to invalidate the broad comparison between the three designs.
Modelling – results – 25 year service

- The graph below shows starting pension per annum for members retiring after 25 years service, in each calendar year (i.e. how pensions vary as a proportion of National Minimum Stipend over time using historical market conditions to model outcomes) under the current scheme, the example hybrid scheme and a DC scheme receiving the same 16% contribution rate.
Modelling – results – 40 year service

- The graph below shows starting pension per annum for members retiring after 40 years service, in each calendar year (i.e. how pensions vary as a proportion of National Minimum Stipend over time using historical market conditions to model outcomes) under the current scheme, the example hybrid scheme and a DC scheme receiving the same 16% contribution rate.
Modelling – results – 10 year service

- The graph below shows starting pension per annum for members retiring after 10 years service, in each calendar year (i.e. how pensions vary as a proportion of National Minimum Stipend over time using historical market conditions to model outcomes) under the current scheme, the example hybrid scheme and a DC scheme receiving the same 16% contribution rate.
The difference between DB, DC and Hybrid designs

After 25 years

- Under the DB design the benefit is 30% of final pay. The median benefit under both the DC and Hybrid designs is very similar to this, but there is significant variation around the median.

- Under the DC design some unfortunate members get a pension which is about half the DB pension while other fortunate ones get about twice the DB pension.

- Under the Hybrid design the unfortunate members get a pension about 15% less than the DB pension while the fortunate ones get a pension about 25% more than the DB pension.

After 40 years

- Under the DB design the benefit is 48% of final pay.

- The median benefit under the Hybrid design is slightly larger than this at 54%, but under the DC scheme the median is very much higher, at 94%.

- The principal reason for the DC median being so much higher than the other two is the difference in the shape of the benefits by age, with a 16% contribution being noticeably more than is required to provide the current DB benefit for a member with 40 years service.

- There is also an impact on both the Hybrid and DC members from investment returns – since our data only starts in 1931, the comparison only relates to retirements from 1970 onward, and this is a slightly more favourable period for investment returns.

- There is substantial variability in the DC outcomes, although because the median benefit is so much higher the great majority of members get a bigger pension than the DB pension, and even the most unfortunate ones get a pension which is only about 10% less than the DB pension.
The difference between DB, DC and Hybrid designs

After 10 years

- Under the DB design the benefit is 12% of final pay, and the median pension under the Hybrid design is very similar to this. The median pension under the DC design is markedly less, at 9%.

- The DC median is less because the 16% contribution is not sufficient to provide the DB benefit for older members (the obverse of the 40 year case above) and also for members who join a DC scheme only 10 years before retirement the lifestyling of the investments means that their contributions are invested to a significant extent in gilts, so there is not the opportunity to earn substantial investment return.

- The lifestyling reduces the variability of the DC outcomes, but because the median benefit is so much lower than the DB benefit, the outcomes are usually worse than under the DB design with pensions being about half that of the DB pension in worst cases.

- Under the Hybrid design the variability of the outcomes is very similar to the DC design, but the median is higher than for the DC design.
The difference between DB, DC and Hybrid designs

Overall

- With a DC scheme the member’s retirement income is dependent on investment conditions during their working life and in retirement. A good design of scheme can help members get the best investment return possible during that period, and inform them about the level of benefit they will get, so that members can plan sensibly and will not be vulnerable to sudden shocks. However, it does not involve any cross subsidy between generations, so that there will be fortunate generations and unfortunate generations.

- A hybrid scheme involves cross subsidy from generation to generation, so means there is much less variability of pension outcome. Fortunate generations will not get the full amount of investment return, as some of that will be taken to subsidise the unfortunate generations.
Managing different risks between DB, DC and Hybrid designs

- The tables below show the levers that can be used to cope with varying experience and market conditions under different scheme designs.
- Experience has shown that this holds true until a lever ‘breaks’ e.g. as the clergy DB pension scheme has seen when DB contributions become so high that they are no longer affordable. A step change in benefit provision is then made in response.
- Similarly when DC benefits were disastrously eroded by the high inflation of the 1970s, many employers topped up members pensions to compensate.
- A hybrid scheme allows both levers to be used to smooth the effects on both the benefit and contribution levels, reducing the need for step changes, and giving more control over changes and a smoother journey for both the Church and the clergy.
- The variability under different scheme designs is shown on the next slide.

### Adverse experience and conditions

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<th></th>
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<th>Hybrid</th>
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<tr>
<td>Employer contribution level</td>
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<tr>
<td>Employer contribution level</td>
<td>↓</td>
<td>No change</td>
<td></td>
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Discussion and Next Steps
Appendix – Modelling method and assumptions
Modelling Assumptions

Death-in-service and Ill health benefits
- Insured with third party provider for similar cost to current cost of accrual within the defined benefit scheme (for simplicity of modelling). Other approaches could be adopted in practice.
- Spouse/civil partner/dependant pension of 2/3rds of member pension

Modelling assumptions (these are consistent with the 2015 valuation assumptions)
- 80% of members married at Normal Retirement Age
- Husbands 3 years older than wives
- Mortality – in line with SAPS S2 tables, with a scaling factor of 80%, improvements in line with the CMI 2015 projections and a long term rate of 1.5% pa for both males and females
- Cost neutral early/late retirement terms
- Deficit reducing contributions would still be required to the current DB scheme
Modelling methodology

- The historic calculations covered in this presentation are approximate estimates of the member outcomes which might have arisen in practice (under then plan designs considered). Our modelling is heavily based on the research carried out for our White Paper on collective defined contribution. A number of assumptions on which our analysis is based in set out in those papers, accessible here: http://www.aon.com/unitedkingdom/retirement-investment/defined-contribution/collective-defined-contribution.jsp

- Specific assumptions underlying our illustrations include:
  - We modelled a stable population over the period, with new joiners at age 43 (i.e. 25 years’ service to 68). To the extent that your membership differs from this population the analysis would be different.
  - Historic data was in some cases heavily rounded, approximate or estimated, particularly in the early years of the 20th century. This may have a compounding effect resulting in less realistic scenarios, particularly in the early years. However, we feel that these are still valid scenarios that show general trends over the 20th century.
  - For the hybrid benefits we have assumed a dynamic investment strategy based on member’s age. Broadly this results in an investment strategy apportioned 60% to UK equities and 40% to UK gilts, but this did vary over time and with age.
  - For the DC benefits we assumed that the benefit from taking drawdown would be 10% larger than achieved by buying an annuity. Whilst this is a crude estimate it represents an estimate of the larger annual income that may be gained from the additional return that may be possible on the investments (by not investing in gilts) and the effect of longevity risk on the structure of the income (Whilst the annuity is an extremely efficient structure, because it distributes all the capital back in the form of pension, with pure individual drawdown that is not possible, which therefore impacts the level of pension available. However, pooling longevity risk could be done within a clergy pension scheme to counteract this effect (and there is also work going on from providers to develop later life deferred annuity products which may help further)).

- The figures and charts are intended as an illustration of our analysis to inform discussion on potential options. As such the illustrations are not subject to ‘Technical Actuarial Standard R: Reporting Actuarial Information’ (or to the other Technical Actuarial Standards in force at the time of writing).
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