Institute and Faculty of Actuaries

EXAMINERS' REPORT

SA4 - Pensions and Other Benefits

Specialist Advanced

September 2023

Introduction

The Examiners' Report is written by the Chief Examiner with the aim of helping candidates, both those who are sitting the examination for the first time and using past papers as a revision aid and also those who have previously failed the subject.

The Examiners are charged by Council with examining the published syllabus. The Examiners have access to the Core Reading, which is designed to interpret the syllabus, and will generally base questions around it but are not required to examine the content of Core Reading specifically or exclusively.

For numerical questions the Examiners' preferred approach to the solution is reproduced in this report; other valid approaches are given appropriate credit. For essay-style questions, particularly the open-ended questions in the later subjects, the report may contain more points than the Examiners will expect from a solution that scores full marks.

For some candidates, this may be their first attempt at answering an examination using open books and online. The Examiners expect all candidates to have a good level of knowledge and understanding of the topics and therefore candidates should not be overly dependent on open book materials. In our experience, candidates that spend too long researching answers in their materials will not be successful either because of time management issues or because they do not properly answer the questions.

Many candidates rely on past exam papers and examiner reports. Great caution must be exercised in doing so because each exam question is unique. As with all professional examinations, it is insufficient to repeat points of principle, formula or other text book works. The examinations are designed to test "higher order" thinking including candidates' ability to apply their knowledge to the facts presented in detail, synthesise and analyse their findings, and present conclusions or advice. Successful candidates concentrate on answering the questions asked rather than repeating their knowledge without application.

The report is written based on the legislative and regulatory context pertaining to the date that the examination was set. Candidates should take into account the possibility that circumstances may have changed if using these reports for revision.

Sarah Hutchinson
Chair of the Board of Examiners
November 2023

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A. General comments on the *aims of this subject and how it is marked*

The aim of the Pensions and other Benefits Specialist Applications subject is to instil in successful candidates the ability to apply knowledge of the pensions and employee benefit environment and the principles of actuarial practice to providers of pensions and employee benefits both in the United Kingdom and the rest of the world.

This subject examines the ability of candidates to apply actuarial practice and concepts to potentially complex problems, integrating their analysis into a coherent whole, and evaluating and interpreting results to draw explicit conclusions.

Examiners look for candidates to demonstrate their understanding of the syllabus but in particular they need to demonstrate ability in applying their knowledge and core actuarial skills to the specific situations that the Examiners have raised, having read the question carefully. Consistently, many of the unsuccessful candidates provide answers that are not sufficiently specific to the subject matter of the question, reproduce core reading that does not directly relate to the question context, or focus on one specific point without covering a sufficient range of points to answer the question. This does not enable the candidates to achieve the required marks. The Examiners encourage future candidates to remind themselves of what they learned in the Core Actuarial subjects, and to use past paper questions to practice applying these skills to the specific scenarios tested.

Well prepared candidates demonstrate that they have structured their solutions well, this is a big advantage in making points clearly and without repetition. There is a significant incidence of points being repeated in slightly different ways, restricting the scope for candidates to score marks. Good structure enables candidates to use the latter parts of questions to generate ideas for answers to the early parts (or use their solutions to earlier parts of questions to create a structure for latter parts). Time management is important so that candidates give answers to all questions that are roughly proportionate to the number of marks available. The questions are set so that it should take approximately twice as long to answer a 10 mark question as a 5 marks one. Answers should therefore be similarly proportionate.

In addition, candidates should carefully consider the instruction, for example, an instruction to list points should be answered with a list without attaching discussion. Similarly, a question asking for a discussion cannot be answered with a list of undeveloped points.

Finally, it is very helpful to the Examiners if candidates clearly identify points made; if they are set out clearly, well-spaced and easily legible. Whilst there is no loss of marks for not doing so, doing so does make it easier to identify scoring opportunities. Candidates who give well-reasoned points, not in the marking schedule, are awarded marks for doing so.

B. Comments on *candidate performance in this diet of the examination.*

The better prepared candidates were those who read the questions carefully, tailored their answers to the questions and thought about what was being asked, rather than just writing about what they know on a particular subject. It was pleasing to see that in this sitting a

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larger proportion of candidates did indeed tailor their answers appropriately with resulting higher marks.

The paper also required candidates to think beyond the obvious answers in a number of places, and the better prepared candidates were able to bring in ideas from other areas of the course to score higher marks in these parts. Less prepared candidates didn't write enough points to ever be able to score highly.

Application aspects of the course are harder to score well on, although again it was pleasing to see an improvement in this area at this sitting. By taking a methodical approach to answers, step by step, candidates were able to score well. It is important that candidates make sure they provide a full answer to all questions.

The importance of structure in the exams should not be underestimated because this will lead to much more efficient work post exams. It is more difficult to get good marks in the absence of a good structure because it means that logical points are more likely to be missed. Sometimes points are just repeated further through the answer meaning that the response was more likely to look of sufficient length than it really was for the marks available. The computer-based format should make it easier to structure answers well.

Time management is required to make sure there is enough time to answer all the questions.

Breaking the question down into smaller parts helps to make sure that a suitable breadth of answer is supplied. It is critical that candidates check that their answers specifically refer to the details of the question, using all of the information in the question pre-ambles. It is not the intention of the examiners to include information in the questions that is not relevant to the answers.

C. Pass Mark

The Pass Mark for this exam was 54.
168 presented themselves and 64 passed.

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Solutions for Subject SA4 – September 2023

Q1

(i)(a)

The DB section is said to be in surplus, but we don't know on what basis or funding method this has been assessed [½]
Assume this is on the basis of capped increases since that was how it was previously assessed. [½]
The first question to consider is what the funding position would be on a basis allowing for full inflationary increases instead of capped increases. [1]
This will indicate how much scope there is for inflation protection beyond the cap. [½]
A small surplus may reduce willingness to make a change. [½]
How strong is the employer covenant? [½]
A weak covenant may suggest surplus could be used differently. [½]
As the scheme is funded prudently it is likely that the surplus would be more substantial on a realistic basis. [½]
Some scenario analysis or sensitivity testing would help in understanding the risks of providing inflation protection. [½]
Another consideration is how far above the cap inflation is expected to rise [½]
and for how long. [½]
It would be useful to establish the discontinuance position of the DB section [½]
Such as the position if the liabilities were bought out with an insurer [½]
Particularly if this is the longer term plan. [½]
If the DB section is in surplus allowing for full inflationary increases, then the case for adopting full inflationary increases is strong [½]
Particularly if this is the case on discontinuance. [½]

Consider any restrictions, such as in legislation and scheme documentation [½]
For example:
On whether the cap can be removed or is a rule change needed [½]
On benefit improvements and application of discretion [½]
On the use of surplus [½]
On a refund of surplus to the employer and whether, and in what circumstances, this is possible [½]

If not in surplus, then other options might be considered such as:
Could plan to convert to full inflation increases when scheme is in surplus on an Agreed basis [½]
Partial allowance – e.g., cap + 50% of excess inflation [½]
Replace cap with fixed increase at (say) 4% [½]
A one-off increase applied to pensions [½]
A cash payment – akin to a bonus [½]
(Other well-argued options)

A plan to introduce inflation protection when it can be done without an immediate increase to employer costs may be a good compromise [½]
That gives the trustees comfort to propose weaker solutions in the interim [½]
Or reduces the risk of creating or worsening a deficit. [½]
A partial allowance for full inflation may be preferable to doing nothing. [½]
A fixed increase may be simpler all round, but impact will vary depending on future

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economic experience. [½]
With a one-off increase to pensions this could be a flat percentage [½]
Or a flat amount. [½]
A flat percentage would be the most obviously fair approach [½]
But a flat amount might be favoured as it would have the greatest impact on those with the lowest pensions [½]
Who might be hardest hit by inflation. [½]
The same arguments could be applied to a one-off cash payment. [½]
In each case there is a need to consider whether the payment or new pension amount is permitted under the tax regime the scheme operates in. [1]
If a pension increase is considered then this will increase the longevity risk within The DB section [½]
Whereas a one-off payment avoids this additional risk. [½]
Introducing full inflationary increases provides the most security for pensioners [½]
Followed by a one-off increase [½]
And finally a cash payment. [½]
Whatever is chosen, a precedent will be set for future years. [½]
Even if the DB section would be in deficit on a funding basis allowing for full inflationary increases, the trustees may still wish to propose this if the employer's covenant is strong. [½]
There will administration and communication costs for any change [½]
And these could be regular if increases have to be calculated separately each year. [½]
Consider the impact on the investment strategy of removing the cap [½]
To limit mismatching risk, more investment in inflation-linked assets or inflation swaps may be considered [½]
If these are unavailable in sufficient quantities, mismatching could lead to a deficit [½]
which the employer may be unwilling /unable to meet. [½]
(Only credit these final points here or in part (iii) unless a good case is made for their inclusion in both places)

Although salary increases would normally be expected to exceed inflation [½]
The trustees could consider changes to the deferment increases [½]
Such as adding an inflation floor to the salary increases. [½]
[Marks available 28, maximum 12]

(b)
The primary argument for giving additional inflation protection for the pensioners is
That they may not have any other opportunities to increase their income to meet higher costs. [1]
The DB section was previously unable to afford higher pension increases without placing an additional burden on the employer but that is less likely now. [1]
If the DB section is in surplus on a funding basis allowing for full inflationary increases then there is no additional cost to the employer of providing these increases [½]
Unless there is an experience loss [½]
Which is less likely if the scheme is funded prudently [½]
Or the section is discontinued, and the liabilities transferred out of the scheme to a provider who requires a payment in excess of the funding reserve [½]
Such as a consolidator or insurer [½]
If the long-term plan is buy-out then full inflation increases may be cheaper than capped increases if they are easier or more efficient to hedge. [½]

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The inflation experienced by pensioners may not be the same as that experienced by other sections of the population [½]
And, as pensioners are likely to have lower incomes than employed people [½]
They may be more exposed to inflation if they have to spend a higher proportion of their income. [½]
Although other options for some inflation protection have been considered, providing full inflationary increases are the easiest to implement [½]
As there is no need to make additional calculations each year to determine what increases or lump sums might be given [½]
Or to check that the payments do not breach any regulatory limits [½]
And these increases also provide automatic inflation protection [½]
And the best security for pensioners. [½]
As there is no accrual in the DB section this will not cause any increase in employer contributions in terms of accrual. [½]
Providing full inflation protection is also likely to be well received by current employees who are active members of the scheme [½]
So it may also help with staff retention. [½]
Legislation / scheme documentation requires surplus to be used in the DB section [½]
as a refund is not possible and, since no deficit contributions need to be paid, contributions cannot be reduced (*marks for any similarly relevant example*). [½]

[Marks available 11½, maximum 6]

(ii)
Price inflation is likely to lead to pressure for higher wage increases [½]
Which, if granted, [½]
Will increase the contributions required in the DC section [½]
And put a strain on the company's cashflow [½]
Higher wage increases will also increase the DB section liabilities [½]
So the DB section may not be in surplus on a basis that recognises the higher wage increases [½]
And the full inflationary pension increases may not be possible without additional employer contributions for the DB section. [½]
The proposal will increase inflation risk in the DB section [½]
And doing this when inflation is high may be expensive. [½]
Is there a proposal to change the investment strategy to match the new payment profile? [½]
If not, mismatching risk will increase which could lead to experience loss and increase employer contributions [½]
And result in volatility on the company balance sheet which is undesirable. [½]
If the section is discontinued there could be a debt placed on the employer if the Assets are insufficient e.g. on buy-out. [½]
Improving pension increases would serve to increase this debt which is undesirable. [½]
In setting a legislative framework that allows inflation to be capped the government Has effectively stated that they believe this is a reasonable balance between member protection and employer cost [½]
So why is it necessary to go beyond this balance. [½]
The company would prefer to see a solution that only pays out additional money beyond the cap when funds allow [½]
Rather than committing the DB section to always pay out above the capped increases. [½]

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The company would also prefer a solution that pays out cash [½]
Rather than increasing the DB section's ongoing pension commitment [½]
And increasing exposure to further longevity risk [½]
And inflation risk. [½]
The DB section is only in surplus because of the deficit contributions paid by the employer [½]
And these were only designed to remove the deficit on a capped increase basis [½]
Not create a surplus allowing for full inflation. [½]
To the extent that the surplus has been generated by investment returns then these may disappear again if the investment strategy is not updated to crystallise the gains made [½]
So the employer can only consider supporting the proposal if the investment changes are made. [½]
Surplus could be used instead to buy out benefits or de-risk the investment strategy. [½]
[Marks available 14, maximum 7]

(iii)
In keeping with IRM the funding and investment strategies should be considered together [½]
Alongside the employer covenant. [½]

Funding strategy:
The current funding strategy is based on capped pension increases [½]
So this should be changed to reflect full inflationary increases [½]
So that they will be fully funded in the future. [½]
With inflation having increased it would be sensible to review the inflation assumption [½]
And make sure it is still appropriate in the current environment. [½]
The inflation assumption may not increase significantly (or at all) if the expectation for long term inflation has not change significantly [½]
And the likelihood of the cap biting has not changed significantly (as it hasn't bitten for the previous 15 years). [½]
The employer has expressed concern that increased inflation would also impact salary increases so this assumption should be reviewed [½]
And assessed against the inflation assumption [½]
And the employer's expectations. [½]
The discount rate assumption should take into account any changes in the investment policy [½]
Any increase in interest rates as a result of monetary policy being used to hit an inflation target [½]
And any change in the employer's covenant as a result of the changed approach. [½]
Any allowance for options should be reviewed in light of the impact on take up due to the review of the terms to allow for inflationary pension increases. [½]
If there was previously an allowance for the mismatch between [½]
the DB section's liability for capped increases and the assets available to provide a suitable income [½]
It may be possible to remove or reduce this allowance so that the overall prudence is reduced [½]
Or vice versa if the investment strategy will become more mis-matched. [½]
Given the concerns expressed by the employer over the impact of higher inflation on

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the business' cashflow [½]
It may be sensible to review the employer's covenant in light of a higher inflation environment [½]
And determine if the allowance for that covenant is still appropriate. [½]
The trustees should review any longer-term plan for the section [½]
Such as buying out the liabilities with an insurer [½]
As the insurer would now be taking on inflation risk, they may require a higher premium. [½]

Investment strategy:
The DB section's investment strategy should be aligned with the funding strategy so if this is based on a matched investment strategy [½]
This would indicate a move to inflation-linked investments. [½]
If the scheme is in surplus following the funding review the trustees may feel able to take some investment risk in order to improve security: [½]
By expecting to continue to achieve good investment returns [½]
By holding some growth assets [½]
An inflation match may be easier to find than a capped inflation match [1]
And this may make it cheaper [½]
And the investment strategy more efficient. [½]
Setting up a suitable inflation match may involve the use of lower risk investments [½]
Which should lock in the good investment performance [½]
And address the employer's concerns about volatility [½]
Although this might reduce the return and make future surplus less likely [½]
Which may make it harder to achieve full funding on a buy-out basis. [½]
Providing fully inflation linked benefits will have increased the DB section's exposure to longevity risk [½]
So the trustees might also consider investments to mitigate that risk [½]
Such as longevity bonds. [½]
Inflation matching may not be entirely possible if insufficient inflation-linked assets are available or such assets use a different inflation measure. [½]
Inflation swaps could be used. [½]

[Marks available 22½, maximum 10]

[Total 35]

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Part (i)(a) There was a insufficiently narrow range of options presented in terms of genuinely different ways to provide a degree of inflation protection – many candidates missed the possibility of flat amount increases or flat amount one-off payments which give better protection to those with the lowest benefits. Some candidates focused attention on the measure of inflation rather than how to allow for it. The candidates who focussed on a range of options for providing inflation protection to members together with their implications and impact, as asked by the question, scored well. Most candidates did not provide a wide enough range of options to gain full marks. Some candidates focused on the categories of members and an option to suit each one, noting there was a category of members (deferred/non-employee) for which no benefits were detailed. Valid points scored marks. Several candidates talked about fairness to members, without recognising that different solutions and benefits could be provided to different categories of membership – as indeed was already the case. A minority of candidates provided solutions focused on providing protection for the scheme and not the members – a typical case of providing an answer they knew without applying their knowledge to the question.
Well prepared candidates were able to apply their wider knowledge on related issues such as investment strategy, risks, tax and surplus.

Part (i)(b) and (ii) Some candidates appeared to find difficult to write their answers in support of either the trustees' or employer's position as appropriate and instead made pros and cons arguments in both parts. Most candidates covered the general points around benefits for members, however some candidates did not cover enough detail on the potential benefits for the employer. The starting point should have been the impact on higher wage increases for the employer – covering costs, liabilities and covenant. The better candidates scored well here and were able to cover a wider range of points together with other/general points. For example, the impact on risks and alternative options which may be preferable for the employer.

Part (iii) A number of candidates seemed confused by what was meant by funding strategy, with some focusing on deficit recovery and long term strategy rather than funding method/assumptions. A sensible starting point would have been to consider IRM, and linking investment, funding and covenant implications. Many candidates did not therefore cover enough points under each heading to score good marks.

Q2
(i)
General:
The trustees will need to consider any legislative requirements for commutation factors [½]
The requirements in scheme documentation [½]
And the approach taken in setting the current commutations factors. [½]
They may also want to consider the proportions of members taking commutation at retirement. [½]

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They will need to consider whether the factors should be unisex or gender-specific [½]
and have regard to market practice in other pension schemes in the
employer's business sector. [½]
It is important to understand the reason for the review [½]
Consider consistency between actuarial factors, particularly those that apply near
retirement. [½]
Consider any taxation implications e.g. if cash is paid tax free and pension is taxed
then it could be argued that commutation factors could be reduced. [½]
Consider likely impact of members taking up the option and liquidity requirements. [½]
To be fair the trustees should allow for guaranteed pension increases. [½]
Consider any discretionary pension increases and whether these should be allowed
for [½]
Particularly if there is a strong likelihood of them being paid. [½]
May have regard to insurer commutation rates if buy-out is expected in the short
term. [½]

Assumptions:
The assumptions will need to be set so that they produce factors that are fair between
members who take commutation and those who don't [½]
Which means they will want to use realistic assumptions rather than the prudent
assumptions used for funding [½]
Which would place a higher value on the commutation factor [½]
This would lead to a higher residual pension or a higher lump sum [½]
And would not be a prudent approach. [½]
Commutation factors could be reduced if the scheme is in deficit on a best estimate
basis but this is unlikely [½]
As pensioners may have no choice but to retire [½]
and may have no other options to increase their income. [½]
thus there should be a funding gain on commutation to the extent that it's not
allowed for in the valuation. [½]
They may also want to consider whether the assumptions should allow for the
Potential for members to select against the scheme if they are in poor health [½]
By using a heavier mortality allowance leading to a lower residual pension [½]
Which therefore would be a prudent approach. [½]
If the factors will be fixed, then the assumptions will need to have regard to longer
term investment market trends rather than current market conditions. [½]
They will need to consider how much allowance is made for future longevity
improvements [½]
Since these may not be realised, they will not want to make too much allowance for
this, if any, so that the factors are not too generous. [½]
The trustees may also consider whether the assumptions should be based on the
scheme's investment strategy for pensioners [½]
Or matching assets for members reaching retirement [½]
i.e., whether commutation factors are set in the context of the scheme or whether they
reflect the wider investment environment. [½]

Fixed or market-related:
This choice will need to be a compromise between using fixed factors that give the
member certainty and allow them to plan their retirement [½]
And using market-related factors that give a fair value between those who take

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commutation and those who don't. [½]
Where the factors sit between these two extremes may depend on the proportion of members who take up the option to commute [½]
If the vast majority commute, then fixed factors may be appropriate to aid planning [½]
and if very few commute then the fairness of market-related factors may be more appropriate [½]
Although trustees will be more concerned with security if take up is high and so may use market-related factors to avoid any gain or loss on a best estimate basis. [½]
Fixed factors will be easier to administer and communicate. [½]
The conditions for the review of fixed factors need to be considered, such as when market conditions change by a given degree. [½]
It may be possible to extend the period between reviews if the market conditions are smoothed to reduce the impact of market volatility [½]
If market-related factors are used the quotation guarantee period needs to be considered. [½]

[Marks available 21, maximum 10]

(ii)
The trustees will want the CETVs to be fair between members who take CETVs and those who don't. [½]
Consider consistency between actuarial factors, particularly those that apply near retirement. [½]
The current CETV basis will have been set in the context of legislative and scheme requirements around when members are entitled to take a CETV [1]
And this may mean that the assumptions are not appropriate to members at retirement [½]
Which may not be significant if there has been little take up of CETV near retirement [½]
But if take up increases then the assumptions may need to be made more appropriate. [½]
The assumptions used for CETVs may also be prescribed to a greater or lesser extent [½]
and the trustees will need to understand whether such prescription still applies for the calculations proposed. [½]
For example, the discount rate may take account of the scheme's investment policy for deferred pensioners and not for those at retirement [½]
Which could lead to a higher discount rate than appropriate (to reflect more growth assets being held to back deferred pensioner liabilities) and therefore a lower CETV than appropriate for those at retirement. [½]
The trustees should consider selection risk and therefore may wish to take account of each member's health and dependants. [½]
The trustees should also consider whether there will be an assumption for proportions married and age differences when actual details are known. [½]
The trustees need to consider how long CETV calculations are normally valid for against changing market conditions. [½]
Assuming retirement packs are sent out some months before retirement [½]
Are CETVs normally valid for this length of time [½]
Or will they just be an illustration of what could be available. [½]
An alternative might be to consider what changes to the assumptions would be appropriate to increase the period of validity to match the period to retirement. [½]
If members normally only see a CETV figure on request, what impact will this much wider exposure have on the number of members taking CETVs [½]
And would this require a change in the assumptions to make them less generous if they are currently set on a generous basis. [½]

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However, if the retiring members take the CETV option this will remove a significant longevity risk from the scheme [½]
And possibly also some inflation risk if the pension increases are hard to hedge [½]
And the employer may want the trustees to set generous factors to encourage take-up [½]
Or they may want the trustees to set less generous factors if they perceive that the member is now exposed to fewer risks. [½]
The trustees should consider the extra costs involved in the calculations and changes to the information packs [½]

[Marks available 12½, maximum 5]

(iii)
Basic member and spouse/dependent details (gender, date of birth, scheme service, salary). [½]

Scheme benefits:
The trustees have a duty to ensure that member communications are clear, fair and unbiased so they will need to make sure that the language used is appropriate to their membership. [½]
They will want to remind members that their retirement decisions will have significant impacts on their finances in retirement [½]
And that they may be required or want to seek independent financial advice to aid their decisions. S [½]
They will explain that the commutation is only converting a part of the member's pension for cash [½]
That the scheme will pay the residual pension [½]
And that a dependant's pension will be payable on death which is unaffected by the member's decision to commute some of their pension for cash. [½]
They should explain that the CETV is the value of all the member's and dependant's pensions so the scheme will pay nothing else in addition [½]
So the member will have to use the CETV to purchase from another provider any pension and dependant's pension they need [½]
And they need to check how much this will cost. [½]
The pension increases that apply to (each element of) the pension. [½]
Benefits that would be available on the insolvency of the sponsor. [½]
The assumptions used to determine the CETV. [½]
They will need to be told whether the values quoted for the commutation and CETV will change before they retire [½]
So they know whether they can make their decision now and stick with it [½]
Or will have to check it again at retirement. [½]
It will be important that they understand this particularly in terms of the cost of any replacement pension if they are taking the CETV. [½]
Fraud and/or scam warnings. [½]
Tax implications for each option. [½]
Commentary on any change in security from leaving PPF regime and moving to another regime. [½]
And on any potential changes in risk to the member such as losing guarantees [½]
Or taking on investment risk. [½]

[Marks available 11, maximum 5]

(iv)

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There are two main reasons why the CETV value is higher:
Firstly the CETV is the value of all your benefits, including the dependant's pension payable on your death; and [½]
Secondly the CETV is provided so you can purchase replacement pensions in a form of your choosing and these are currently quite expensive. [½]
You should also note that the commutation factors are usually fixed for a long period [½]
Which means they could look more or less generous against a CETV that is related to current market conditions. [½]
The commutation figure is an option for you to make limited changes to your scheme benefits so that they better meet your needs [½]
Such as having a lump sum to settle any debts you may have [½]
Or to help you with your retirement plans such as taking a holiday or moving house. [½]
To help you plan these changes the scheme guarantees the terms of this option from the issue of the retirement pack up to your retirement. [½]
The CETV figure allows you to make much more radical changes to your benefits by, for example, purchasing different pension increases [½]
Or different dependant's pensions. [½]
The costs of doing this will change quite considerably from time to time and at the moment they are quite high [½]
So the CETV available to enable you to do this is also quite high at the moment [½]
But this could change so this figure is not guaranteed [½]
Although it should move broadly in line with the cost of the replacement pension [½]
So you should still be able to plan your choices with a reasonable degree of certainty. [½]

The CETV may be generally expected to be higher (all other things being equal) if, for example:
The member is female and the CETV varies by sex whereas commutation factors are unisex [½]
It allows for discretionary pension increases whereas commutation factors do not [½]
It allows for beneficial options, such as early or late retirement [½]
The commutation factor takes account of the beneficial tax status of lump sums [½]
[Marks available 9½, maximum 5]

(v)
Dependant details – date of birth, gender etc [½]
Details of other pensions or benefits available to the member [½]
And their dependants. [½]
What other assets the member has [½]
How accessible they are [½]
And the same for their dependants [½]
What debts the member has, such as mortgages, [½]
And how they will be paid off. [½]
What spending plans the member has for their retirement. [½]
What the member's state of health is [½]
And the same for their dependants [½]
And what are the dependant's support needs [½]
Appetite for risk. [½]
[Marks available 6½, maximum 4]

(vi)

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An assessment of whether enhanced terms for impaired health may be available for benefit purchases from (say) an insurer [½]
Based on the member's and dependant's health [½]
And the options this opens up to improve the benefits [½]
After allowing for any medical underwriting costs [½]

A comparison of the benefit options available such as:
The scheme options for full pension or commutation with reduced member's pension [½]
Alongside the options for using the cash commutation [½]
And the options available if the CETV is taken [½]
Such as securing a different mix of member and dependant's pension [½]
Or changing the increases in payment [½]
Or taking income drawdown [½]
Alongside the options for continuing investment [½]
This comparison will be presented in the context of the member's needs for cash now to meet their various spending needs [½]
and to settle debts [½]
Allowing for other assets and benefits [½]
and when they are available. [½]
The comparison will also recognise their needs for income going forward and how They are likely to change over time [½]
Perhaps increasing as a consequence of long-term care [½]
Or reducing on account of reduced activity in older age. [½]
and any other benefits they have [½]
Such as State benefits. [½]
The financial adviser will recommend whatever option provides the member with the greatest value of benefits, based on their circumstances, whilst meeting their needs [½]
Dependants' benefits can be ignored if the member has no dependants and then it is likely that better value is achieved by taking a CETV [½]
If the member is in poor health, they may want more benefits up front by taking maximum cash, which may only be possible by taking a CETV. [½]
If the member and dependant are in good health remaining in the scheme may be the best option. [½]
The adviser will set out the information they have used and the assumptions they have made in presenting the comparison and recommendations [½]
Alongside any caveats or limitations on their advice [½]
and an explanation of the risks of the various options [½]
and their tax implications. [½]

[Marks available 14, maximum 5]

[Total 34]

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Part (i) was answered quite well generally. Most candidates were able to score well by providing good bookwork knowledge. There were a number of additional marks available for general trustee considerations, which the better candidates were able to cover.

Part (ii) there were three main points in the background to this part of the question – the retirement figures would not be enhanced, they would be based on current market conditions and, most importantly, that the members were at retirement rather than being deferred members. Some missed the first so spent time considering whether the terms would be enhanced or not, some missed the implication of the second which would lead to considering whether the figures should be guaranteed or not and how this might affect the basis and finally many candidates missed the need to review the basis to make sure it would be appropriate for this group of members. Many candidates struggled to pick up high marks here, though many picked up marks through standard bookwork elements.

Part (iii) needed care to make sure the Trustees didn't stray into giving members advice in this communication. However, few candidates considered the need to explain the factual differences between the different figures being included and the implications for dependants' benefits. Factual information about differing risks and security considerations were also important in potentially moving from a pension scheme environment to a life office environment. Most candidates scored well here and were able to cover information and guidance requirements as well as explaining the difference between commutation and CETV.

Part (iv) few candidates made the most obvious point in their answers which was that the CETV was a value of the whole scheme benefit (including dependant's pension) whereas the commutation figure was a value of a portion of the member's benefit. Some candidates seemed to find it difficult to make arguments appropriate to a member response and included information that, whilst true, would be unlikely to be communicated to the members. Overall, a mixed response. The question required a clear separation of looking at both commutation and CETV.

Parts (v) and (vi) were generally well answered. The majority of candidates scored well here. The better candidates were able to cover a wider range of issues to score additional marks. Most focused on income needs and a comparison of the options.

Q3

(i)(a)

Total number of members match in each category before and after transfer	[½]
i.e., active, deferred pensioner, pensioner and dependants	[½]
Total pension in payment matches before and after transfer for pensioners and dependants	[½]
Total contingent dependants pension matches before and after transfer for pensioners	[½]
Total deferred pension matches before and after transfer	[½]
Total pensionable salary matches before and after transfer	[½]
Average ages (unweighted) match before and after transfer for each category	[½]

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Average service (unweighted) matches before and after transfer for active members [½]
Check the data fields are consistent [½]
Random spot checks on member data for each category. [½]
[Marks available 5, maximum 3]

(b)
Same totals and averages as in (a) can be matched from the valuation data extract [1]

Complete reasonableness checks such as:
Check maximum and minimum values for each data item in (a) to identify if there are missing values [½]
e.g., zero pensions appearing as minimum values [½]
Or missing dates of birth appearing as extremely old members. [½]
Dates are in appropriate chronological order. [½]
Check totals for each tranche of benefit. [½]

Complete consistency checks such as:
Weighted average ages from valuation data extract are consistent with the last scheme valuation report [½]
Weighted by salary and service for active members [½]
Weighted by deferred pension at date of leaving or current date for deferred pensioners [½]
Weighted by pension for pensioners and dependants [½]
Data could also be checked for consistency with other sources, [½]
e.g., against current pension payroll and current contributions [½]
e.g., against trustee report and accounts, corporate accounts [½]

Complete reconciliation checks such as:
Membership numbers in each category in the valuation data extract can be reconciled with the last valuation report [½]
Which will need membership movement details from the old administration system [½]
Pension benefit amounts can be reconciled with the last valuation report [½]
For deferred pensioners, pensioners and dependants [½]
Allowing for amounts related to membership movements [½]
and known pension increases [½]
Random spot checks on members [½]
and for those with high liability values such as older, long serving executives. [½]
All necessary data is provided. [½]
[Marks available 11½, maximum 5]

(ii)
It is unlikely that the new administration system will be able to produce a valuation data extract at the date of the last valuation [½]
So it will be necessary to carry out a valuation at a current date [½]
and compare this with values rolled forward from the last valuation. [½]
The assumptions used for this valuation will be those used for the last valuation report [½]
and in some cases the new scheme actuary may need to make assumptions to
Compensate for missing data items [½]
Or make approximations to deal with complex benefits. [½]

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An analysis of surplus might be completed as a first step to see if the overall results are consistent with the previous valuation [½]
Concentrating particularly on the liabilities in order to check the underlying data. [½]
If the unexplained surplus is too large [½]
Compared to agreed materiality thresholds [½]
Then the results require further investigation. [½]
A first step might be to review the assumptions for missing data or approximations for complex benefits and confirm they are appropriate given the materiality of their impact. [½]
One way to do this is to roll forward the results from the previous valuation date separately for each membership category [½]
Allowing for actual movements in membership between and within categories [½]
Actual pension increases [½]
Actual salary increases [½]
In order to produce estimated values for each membership category. [½]
These would be compared with the values calculated now for each category to Identify If the problems can be isolated to a particular group of members. [½]
Each category of membership where the difference is too large would be examined further to look for errors in the data extract (compared to the data transfer) [½]
Errors in the valuation programming [½]
Inappropriate assumptions for missing data [½]
Or inappropriate approximations being made for significant complex benefits. [½]
In this manner it would be hoped that any errors or misunderstandings in the data, benefits or assumptions and approximations would be identified and corrected. [½]

[Marks available 11½, maximum 7]

(iii)
Integrity:
This section requires all members to act honestly so there should be no hiding of information by either actuary if it is relevant to the discussion [1]
As both actuaries have a duty to the scheme members and trustees to resolve any issues. [½]
This might include the new scheme actuary being open about any concerns they may have about their own understanding or calculations [½]
And equally, the previous scheme actuary being open about any approximations they have made which could be relevant. [½]
This openness will be assisted by the knowledge that both actuaries should be keeping information confidential until such time as that might become inappropriate. [½]
Both actuaries should treat each other with respect for their professional status [½]
Which means not adopting an adversarial position [½]
Seeking only to understand the issues [½]
And not calling into question the other's competence. [½]

Compliance:
Both actuaries should be mindful of the regulatory requirements for the calculations being performed [½]
As well as professional standards and guidance [½]
and be alert to any aspects of the discussions that might indicate that these are not being followed by one or the other party [½]
and show a willingness to help the other party be aware of such a shortcoming. [½]

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Speaking up:
The expectation would always be for there to be a frank, professional discussion between the two actuaries where all views are aired and the proper course of action agreed. [1]
If discussions show that either party has made an error of fact or understanding [½]
Or breached any regulatory requirements [½]
The other party has a duty to make this known if its material [½]
and would not otherwise be declared or communicated – i.e. by the person making the error. [½]
The actuaries may want to seek advice from the profession. [½]
The preference would always be for the person making the error to be the one that makes it known [1]
To those for whom it is relevant. [½]

[Marks available 12, maximum 8]

(iv)
Trustees:
If the understatement is material, then the trustees need to be told [½]
and the reasons should be explained. [½]
Materiality may be considered in terms of whether it would have changed any actions or decisions [½]
and in light of the prudence in other assumptions [½]
Such as the assumption that no actives will commute pension at retirement
Such as whether CETVs might have been reduced for underfunding [½]
Or any benefit improvements had been granted. [½]
The impact on any longer term plan may be more material and should also be considered [½]
such as buy-out with an insurer. [½]
The previous scheme actuary should make them aware, possibly jointly with the new scheme actuary. [½]

Directors of ABC:
The directors will need to be told if the understatement is significant enough to require the accounts to be restated for one or more years [½]
Or if they will likely have to pay significantly more contributions to the scheme. [½]
Assessing the need for accounting action would need to involve the auditor. [½]
It would be preferable for this to be communicated by the new scheme actuary [½]
With the support of the auditor. [½]

Shareholders of ABC:
If the accounts need to be restated, then the shareholders will be told of the problem anyway and the explanation needs to confirm that the problem has been fixed [½]
and any actions taken as a consequence. [½]
There may be a requirement to make an announcement to the local stock exchange [½]
Particularly if the error will affect trading activity. [½]
This communication will have to be made by the directors of ABC. [½]

Scheme members:

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If the conclusion is that no trustee actions or decisions would have changed [½]
and that there will be no accounting impact (some members may also be shareholders) [½]
Then it may just be left to an explanation in the next valuation report. [½]
Otherwise, an earlier communication will be needed alongside confirmation of actions. [½]
This communication should be by the new scheme actuary and/or trustees as appropriate. [½]

Pensions regulator:
Similar considerations might apply here as for members in terms of materiality. [½]
The pensions regulator might be concerned with the impact on the discontinuance position [½]
and the payment of levies to, and risk of entering, any central discontinuance fund. [½]
The additional consideration might be if the issue calls the previous scheme actuary's competence into question and they advise other schemes [½]
Or there has been a breach of regulations or mandatory guidance. [½]
If a communication is needed it would probably be left to the previous scheme actuary to self-report [½]
But the new scheme actuary should consider reporting if they do not. [½]

Actuaries' professional body:
This is similar to the regulator's situation in that no report may be necessary unless the previous scheme actuary's competence is being called into question [½]
i.e., a breach of competence and care requirement of the code [½]
Or they have breached regulations or mandatory guidance. [½]
If a report is required, the previous scheme actuary should self-report [½]
But the new scheme actuary should consider reporting if they do not. [½]

[Marks available 18, maximum 8]

[Total 31]

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Part (i)(a) the important aspect of this part was that the transferred data needs to be accurate and not merely consistent with the previous data. This is a much tougher test than would be applied to valuation data normally and the checking therefore needs to be much more rigorous. Few candidates really got to grips with this requirement.

Part (i)(b) is again concerned with accuracy in that the data extracted for the valuation must correctly represent the data stored and not just be consistent with previous valuation data extracts. More candidates scored better on this and in particular showed an awareness of the need to look for completeness and consistency between various member dates such as date of birth and dates of joining and leaving service. Many candidates struggled to apply their bookwork knowledge to the specific scenario, without focus on the administration and valuation aspects. The better candidates were able to cover checks on reasonableness, consistency and reconciliation.

Part (ii) Most candidates realised the need to carry out an analysis of surplus as a first step in ensuring consistency with the previous valuation, but few went on to consider how they would deal with the likelihood that initially the two results would not be consistent for reasons such as how complex benefits may have been simplified for valuation purposes or what assumptions might have been made for missing or incomplete data. Tracing the sources of difference requires a methodical approach which looks at subsets of the valuation membership until the differences are found. While most candidates recognised the relevance of an analysis of surplus, some replicated their bookwork knowledge without thinking through how that would be used in the circumstances of the question.

Part (iii) The better prepared candidates answered this part well, but some made far too few points for the available marks and didn't demonstrate understanding of putting the Actuaries' Code into practice. Overall, candidates scored reasonably well, recognising the practical and real life issues that would be relevant.

Part (iv) Few candidates mentioned the need to consider the materiality of the error with respect to a particular party when considering whether to disclose the issue or not and when, and there was some uncertainty as to who would be responsible for informing the various parties, but most candidates scored reasonably well. The better candidates were able to recognise the difference between a genuine mistake, which needed to be corrected, and an intentional error, which would need to be reported. Some candidates forgot to cover the 'by whom' missing out on marks.

[Paper Total 100]

END OF EXAMINERS' REPORT

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Institute and Faculty of Actuaries

Beijing

14F China World Office 1 · 1 Jianwai Avenue · Beijing · China 100004
Tel: +86 (10) 6535 0248

Edinburgh

Level 2 · Exchange Crescent · 7 Conference Square · Edinburgh · EH3 8RA
Tel: +44 (0) 131 240 1300

Hong Kong

1803 Tower One · Lippo Centre · 89 Queensway · Hong Kong
Tel: +852 2147 9418

London (registered office)

7th Floor · Holborn Gate · 326-330 High Holborn · London · WC1V 7PP
Tel: +44 (0) 20 7632 2100

Oxford

1st Floor · Belsyre Court · 57 Woodstock Road · Oxford · OX2 6HJ
Tel: +44 (0) 1865 268 200

Singapore

5 Shenton Way · UIC Building · #10-01 · Singapore 068808
Tel: +65 8778 1784