Review of Statement of Investment Principles

Prepared for:	The Participating Employers of the Universities Superannuation Scheme
Prepared by:	Aon
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For professional clients only.

Introduction

Contents

Why bring you this report?

Following the 31 March 2020 valuation, the Trustee of the Universities Superannuation Scheme (the 'Scheme') carried out a review of the Scheme's investment strategy. This has led to the planned replacement of the current Reference Portfolio with the Valuation Investment Strategy (VIS). Following the decision to change strategy the Scheme's Statement of Investment Principles (SIP) has been updated. The Trustee is required by regulation to consult with (but not gain the agreement of) all participating employers (the 'Employers') on these planned changes.

As part of this consultation, Aon has been asked to complete a review of the SIP, the outcome of which is set out here. We have also commented on the USS Investment Beliefs. This paper should be read in conjunction with the amended SIP, consultation letter, USS Investment Beliefs and VIS Questions And Answers documents which were provided as part of the consultation.

How is this report set out?

- After this introductory section, we have our 'At a glance…' section. The aim of this is to provide a quick executive summary of the main points in this report.
- The first section of the main report then summarises the planned changes to the VIS.
- As increasing the interest rate and inflation hedging is central to the VIS, the following section provides an introduction to Liability Driven Investment (LDI): what it is, how it works and the use of leverage. People already familiar with LDI can skip this section.
- We then give Aon's views on the planned change to the VIS.
- Next we look at the SIP, covering the legislative requirements and Aon's view on the draft SIP that is being consulted on.
- We then touch briefly on the Investment Beliefs document that was also circulated as part of the consultation.
- Finally, we set out our main conclusions.

Next steps

The Employers should:

- Review our advice, alongside the draft updated SIP and the other documents supplied as part of the consultation.
- Consider whether to feedback any suggestions or concerns to the Trustee as part of the consultation.

At a glance…

This section is an executive summary of the main points in this report.

Our main comments on the draft SIP and other documents supplied as part of the consultation are:

- We are supportive of the aim of the Trustee to reduce funding volatility while targeting an acceptable level of return.
- We are supportive of the direction of travel in moving from the current Reference Portfolio to the Valuation Investment Strategy (VIS). In particular, we are supportive of the modest use of leverage* proposed to achieve higher interest rate and inflation hedge ratios, since it will reduce the volatility in the funding position.
  - While the amount of leverage will be large in £ terms it will be modest relative to the size of the Scheme and less than that used by many other large UK pension schemes.
  - Note also that, even at the increased hedge ratios proposed, the Scheme will still have lower hedge ratios than most large UK pension schemes.
- The increase to the hedge ratios will increase the importance of the liability hedging assets and we have raised a number of areas that the Employers may wish to consider further relating to this, including the relatively wide range of assets used for hedging.
- We believe that the draft SIP, as updated, correctly reflects the proposed new strategy and complies with the legislation.
- We have raised a number of areas in the SIP where the Employers might wish to ask for greater detail.

* Leverage is used to achieve higher hedge ratios while maintaining high growth asset allocations. This is described in more detail later in this report.

Proposed Strategy Changes

This section summarises the key changes planned to the investment strategy.

Introduction

Following the 2020 valuation the Trustee has reviewed its investment strategy and the Trustee intends to change its approach. In particular, the investment strategy references a benchmark strategy referred to as the Valuation Investment Strategy (VIS) which consists of an allocation to growth assets, an allocation to hedging assets (for interest rate and inflation risk) and the use of leverage.

Details of the VIS are provided in the “In-depth presentation on DB Investment Strategy for the 2020 valuation” dated 14 February 2022, but we summarise the key points below.

Key features of the proposed strategy

- The main change between the previous investment strategy and the VIS is the increase in the interest rate and inflation hedge ratios, to a target of hedging 40% of the self-sufficiency liabilities, the Trustee’s primary measure, versus the current hedge ratios of approximately 34% for interest rate and 28% for inflation of the self-sufficiency liabilities. We note that the trustees of different schemes may have different priorities and therefore not necessarily use self-sufficiency liabilities in defining their hedge ratio.
- The allocation to growth assets is unchanged at 60% and the increase to the hedge ratios will be mainly through the use of leverage. Note that while the growth allocation is unchanged now, under the 2018 Actuarial Valuation discussions, the intention had been to reduce the growth asset allocation by 7.5% every three years. This does mean that the Scheme is running a higher level of growth assets than originally planned following the 2018 valuation but the Trustee decided this was possible given the level of covenant support. In isolation this would lead to an increase in expected return and would act to address any drag on expected returns from the increased hedging.
- The VIS divides the assets into three main components: growth, hedging and leverage. There is also a fourth component which is a credit portfolio.

An Introduction to LDI

The aim of this section is to provide an introduction to LDI for those less familiar with this important investment approach.

Introduction

The VIS aims to increase the interest rate and inflation hedge ratios to 40% of the self-sufficiency liabilities. This will be achieved through the techniques of Liability Driven Investment (LDI). As this is central to the proposal, we have provided a high level introduction to LDI in this section.

We will cover an overview of what LDI is, how it works and how it is used by other schemes. As leverage tends to be involved in LDI, we will also explain how this works along with the risks and benefits.

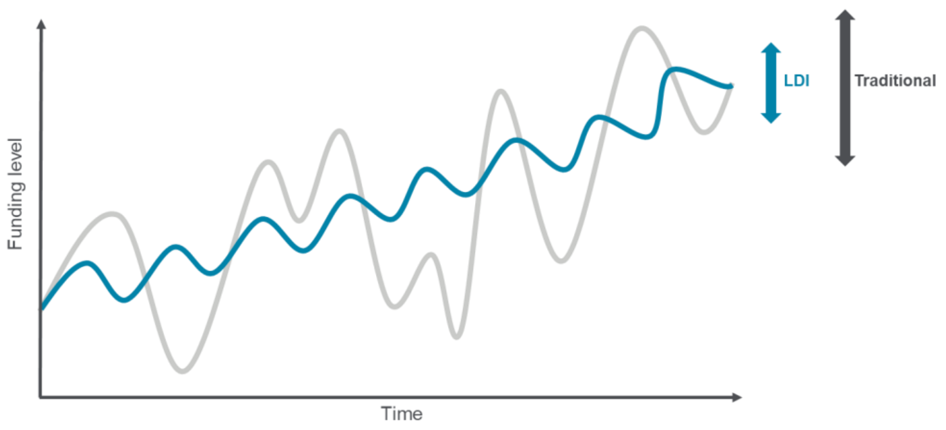
What is LDI?

As interest rates fall or inflation increases, the value of the liabilities increase. LDI is about investing in assets that match the scheme's liabilities, in particular using assets that match the interest rate and inflation sensitivity of the liabilities.

How does it work?

Pension payments are a series of regular cashflows that may be linked to inflation. As such, the cashflow stream is similar to that of a bond. LDI looks to invest in low risk assets that behave in a similar way to the liabilities – typically these assets would be government bonds. If a scheme was fully funded, it could invest fully into government bonds to match the pension cashflow payments.

LDI helps reduce volatility versus the liabilities, providing more certainty to the scheme.



Source: Aon

Note: The graph above is for illustrative purposes only. The traditional portfolio represents a portfolio with a relatively low level of investment in fixed income securities (i.e. bonds).

LDI

The use of LDI is commonplace across the industry and is seen as a key risk management tool for defined benefit pension schemes. Aon's 2021 Global Risk Survey indicates that 74% of respondents had hedge ratios more than 80% of assets (compared to 45% in the previous survey)

As a worked example, if we take a scheme with £90bn of assets and £100bn of liabilities, with a hedge ratio of 100% of liabilities we can see the following:

Stresses

Long dated Interest Rate Stress	Assets	Liabilities	Funding Level	Surplus/ Deficit
0%	£90bn	£100bn	90%	£10bn
+1%	£70bn	£80bn	87.5%	£10bn
-1%	£110bn	£120bn	91.7%	£10bn

Source: Aon

The sensitivity to interest rate stresses in the worked example above does not represent the Scheme's sensitivity to interest rate shocks.

By targeting a hedge ratio of 100% of liabilities, the scheme has protected the size of the surplus/deficit from changes in interest rates. The same is true for changes in implied inflation albeit rises in inflation increase liabilities and also asset values.

Use of LDI by other schemes

LDI is now used by a significant number of schemes, with some schemes starting their journey 20+ years ago. It is now viewed as a standard part of the risk management toolkit. Hedge ratios do vary by scheme, depending on risk appetite but have been increasing over the few years as managing funding level volatility has increasingly become more important for certain schemes. Over a third of respondents to Aon's Global Risk Survey are fully hedged although this predominantly relates to closed schemes.

Use of leverage

It is not unusual for leverage to be used within an LDI portfolio. Leverage allows an investment to be made without fully funding it. Therefore, as opposed to investing in £100m of bonds to provide a £100m of protection, a scheme could invest in £50m in bonds, giving £100m liability coverage with the remaining £50m being used to invest in growth assets.

There are risks associated with using leverage including collateral and counterparty risks but for most schemes these considerations are taken into account by the trustee and underlying fund managers.

As interest rates rise, any leveraged hedging will decrease in value (offsetting falls in liability values). Therefore, the Scheme will need to post collateral (typically cash/government bonds) and will need to have sufficient appropriate assets to post to the counterparty. Counterparty management will be important too as the Scheme will use gilt repurchase agreements for some of the hedging. These agreements last up to a year and will need to be renewed regularly. Therefore, having a wide range of counterparties and spreading the dates on when these agreements are renewed will be important for maintaining the target hedge ratios.

Aon's Views on the Strategy Changes

The aim of this section is to provide Aon's views and observations on the planned move to the VIS.

Introduction

Our main comments on the proposed change to the VIS relate to the increase in hedging and these are set out below. We then follow this with comments on other areas.

Comments on the increase to hedging

Does the nature of the Scheme mean such approaches are less appropriate?

The Universities Superannuation Scheme is a unique pension scheme. It is one of an increasingly small number of open schemes – indeed, over 200,000 of the c.900,000 remaining active members of private sector DB or hybrid schemes are members of the Scheme.

Conceptually, it is possible to run an open scheme in a very different way to a closed scheme, and the case for hedging interest rates and inflation can be less clear-cut.

However, the funding strategy (for determining cash contributions) is determined by the Trustee, acting on the advice of the Scheme Actuary, and in consultation with Universities UK. (Additionally the Investment strategy is set by the Trustee in consultation with the employers.)

We understand that the Trustee has adopted a suite of Integrated Risk Management metrics that are centred on self-sufficiency. Furthermore, the Pensions Regulator has described the current approach as being at the limits of regulatory compliance, and has noted that the Trustee should not rely on the Scheme remaining open indefinitely. We note that some Employers may have differing views, particularly on the use of self-sufficiency.

From a practical point of view, to limit the exposure of the Employers (and the employees, under cost-sharing) to additional contributions due to the assets and liabilities moving out of synch, we can see merit in hedging interest rate and inflation risk in the Scheme – despite it being open to accruals. The argument is analogous to other UK schemes, at least for the post-retirement liabilities. It is also worth noting that the total contribution rate for USS comprises both the cost of new benefits, as well as any adjustment for deficit or surplus. The hedging being proposed relates to the benefits already earned only.

We are supportive of increased hedging

Most of our clients have taken the view that interest rate and inflation risk is not something they expect to be rewarded for taking. As such, most have hedged at least as much of this risk as is proposed in the VIS. Our view is that these risks should be hedged as far as possible. As such, we support the direction of travel here, with the VIS leading to greater hedging than is currently the case. Given the size of the Scheme, any significant increase in hedging will take time to implement and we would expect any increase to be managed by looking at available liquidity and transaction costs.

Many defined benefit pension schemes use leverage to enable hedging interest rate and inflation risks while still maintaining an allocation to growth assets and therefore the proposal to increase the use of leverage is not unusual in the context of defined benefit pension scheme risk management and again is something we would support. Note that, even at the increased hedge ratios proposed, the Scheme will still have lower hedge ratios and less leverage than most large UK pension schemes, albeit most of those schemes will be closed to new entrants and to future accrual.

Is now a sensible time to make such a change?

The change is a strategic move to higher levels of hedging rather than a tactical position and therefore it is not necessarily trying to time the market. Given the large size of the Scheme, it will naturally take some time to build up the hedge ratios to the new strategic levels. At the current time, the cost of hedging nominal and real rates has reduced since the start of 2022 albeit from historically expensive levels. Our understanding is that some of the hedging has already taken place and employers may wish to ask whether it has made or lost money so far. As mentioned earlier, the size of the Scheme means implementation of significant increases in hedging will take time.

What are the advantages and disadvantages of this from the Employers' point of view?

Hedging provides greater certainty on the past service funding position from changes in interest rates and expected inflation. The key advantage is that reduced funding level volatility will provide greater certainty into the levels of contributions required by the Employers and Members. This increased certainty may help avoid or reduce conversations on contributions and benefit negotiations. The disadvantages from the Employers' perspective are that the Scheme may be purchasing liability hedging assets at a time when they are at expensive levels, although we note that this might have been argued at any time in the last 20 years and with the benefit of hindsight, would have proved to be incorrect. In addition, the use of leverage (although commonplace now), does add additional risks on counterparty and collateral management.

The Trustee has justified the level of hedging in the context of the VIS, being the optimal level given risk and return trade-offs. Within the wider industry there are a range of hedge ratios with many schemes looking to target 100% of liabilities over the long term. Therefore this could be viewed in this context as a stepping stone to potentially higher hedging levels in the future. It should be noted that at 40% hedging, the Scheme will still gain in funding level terms and reduced deficit if interest rates rise or inflation falls, albeit to a lower extent than if hedging had not increased. In the contrary scenario, the Scheme will have a lower funding level and a higher deficit if interest rates fall or inflation rises, but the higher hedge ratios will have reduced the impact.

Are there implementation issues?

Moving to higher hedge ratios does mean that the accuracy of the hedge and the skills of the manager in this area need to be considered. Following our initial review of the documents we had a meeting with Universities Superannuation Scheme Investment Management (USSIM) to discuss some of the areas where there would be large changes, in particular covering off interest rate and inflation hedging and also the increased use of leverage.

Note that Aon has not carried out any due diligence or manager research on USSIM and the following comments are just our observations based on the materials supplied and the discussion we have had.

- Given the size of the Scheme, the increased allocation to LDI hedging assets will be substantial in £ terms. The annual issuance of index-linked gilts has been in the region of £20-30bn per year and demand has been strong from defined benefit pension funds. To deal with the lack in supply, the Employers should note that the investment universe in this area used by USSIM is wider than what would normally be expected for a more standard hedging portfolio (which would normally be focussed on using gilts to hedge UK based liabilities). In particular, we note that US Treasury Inflation-Protected Securities (US TIPS) will be used. The use of US TIPS may increase further. The Employers could consider asking for greater information on exactly how such assets are used as part of the hedging of UK interest rates and inflation. The Scheme may use other non-gilt hedging assets which is not unreasonable for such a large Scheme.
- Leverage can be obtained from a variety of sources, the main ones being various types of swaps (derivatives) and the use of repo (unfunded/ leveraged bonds). USSIM is also using leverage in different currencies in particular EUR and USD to further diversify the ways of accessing leverage. There is a balance to be struck between cost efficiency and accuracy of the hedge. With the use of leverage expected to increase, the Employers could ask for greater detail on how leverage will be managed on an ongoing basis.
- We note that USSIM is supported in this area by a third-party specialist investment manager, BlackRock Investment Management. We are supportive of the additional specialist expertise available to USSIM.

Comments on other changes

Reformulating the assets into growth, liability hedging and leverage is relatively unusual in that it splits out leverage, few of our other clients split out leverage in this way. Given that there is also an allocation to credit, a more typical approach would be to regard the three components as: growth, credit and liability hedging, with the leverage included in the liability hedging assets. This is only a presentational issue, however.

Statement of Investment Principles

The aim of this section is to describe the legislative requirements of the SIP and give Aon's comments on the updated SIP as drafted by the Trustee

Legislative requirements

The main areas of legislation directly affecting the contents of a SIP are:

- The Pensions Act 1995.
- The Pensions Act 2004.
- The Occupational Pension Schemes (Investment) Regulations 2005.

Note that the provisions of sections 35 and 36 of the Pensions Act 1995 which deal with SIPs and choosing investments were modified by sections 244 (which replaced section 35) and 245 (which amended section 36) of the Pensions Act 2004. The prescribed regulations referred to in these sections of the Pensions Act 2004 are those contained in the Occupational Pension Schemes (Investment) Regulations 2005.

Note also that while these are the main areas of legislation, the requirements of the SIP have also been amended by other regulations, in particular:

- The Pension Protection Fund (Pensionable Service) and Occupational Pension Schemes (Investment and Disclosure) (Amendment and Modification) Regulations 2018.
- The Occupational Pension Schemes (Investment and Disclosure) (Amendment) Regulations 2019.

Aon's comments on the draft SIP's compliance

We believe the SIP covers everything required by the legislation noted above and indeed goes beyond the requirements in some areas. We also believe that the SIP, as amended, correctly reflects the proposed new strategy.

However, we do have some areas where the Employers could look to clarify the Trustee view and these are set out below. Increased dialogue between the Trustee and Employers could be introduced to work through these areas over time.

Please note that while we are comfortable the SIP covers everything required from a regulatory point of view, we are unable to offer a legal opinion on the SIP compliance with the legislation, which should be obtained separately if required.

Aon’s broader comments on the SIP

While we have no concerns from a compliance point of view, we have the following, broader observations on the SIP, which the Employers may wish to consider, perhaps through increased dialogue, as mentioned above. We have grouped our comments under the various policies in the SIP and have covered these in the same order that they appear in the SIP.

Expected returns

Regarding section 1.2.4, it may be useful for the Employers to ask about the process involved in how the Trustee monitors expected returns and the frequency at which this is monitored.

Responsible investment

We have a few comments on section 1.4, which covers the policy on responsible investment, as follows:

- In 1.4.3 the SIP introduces an ambition to be net-zero by 2050. This is relatively unusual to include in a SIP. The Employers should consider whether that ambition fits with the ambition of their own organisations. For example, if the employer had an ambition to achieve this earlier or later, or had made a decision to make no such commitment, it may wish to feed that back in the consultation. The Employers many also wish to ask how progress towards this ambition will be monitored.
- In a number of places the SIP refers to the fact that the Trustee expects its external managers to take action with respect to integrating ESG/stewardship into their investment processes, although there is no indication as to how the Scheme's external managers would know that this is expected of them. We would consider it best practice for the SIP to include more explicit engagement/communication with external managers as well as detail as to how this is monitored.
- When referring to ESG as a financially material concern, the SIP wording limits the Trustee's consideration of these factors to actions taken by the Scheme’s investment managers. The Employers could seek clarity as to the extent to which ESG related factors would feature in asset allocation decisions.
- The changes in section 1.4.4 seem sensible, but the Employers could ask for greater detail on how this is monitored.
- In section 1.4.7.2 the Employers could ask for greater detail on how the Trustee concludes whether the membership share concerns around non-financial factors.
- In 1.4.10 we note that the references to PRI and the Stewardship Code have been deleted. The Employers may want to investigate whether this means that the Trustee no longer commits to these, or whether they are set out elsewhere.
- In 1.4.12 we note that the last line about the Trustee reviewing its ESG policy regularly has been deleted. The is no requirement to state this, but it would be best practice to do it and we assume the Trustee does do this, so the Employers could query why this has been removed.

Performance measurement

In section 1.5, which sets out the policy on arrangements with managers, we note that the SIP contains details of monitoring the performance of USSIM. However, it offers no detail as to how the performance of individual direct investments managed by USSIM are reviewed. The Employers may wish to clarify particularly how USSIM's management of illiquid direct investments is reviewed.

Asset allocation

We are concerned about the lack of detail in section 2.2.2, which covers the policy on the balance between investments.

- The SIP is generally quite detailed and yet only covers the investment strategy in relatively vague terms. This approach means the Trustee can in theory make quite big changes to the asset allocation with no need to consult with the Employers since the wording here is so broad. Given the amount of detail in the SIP, **we recommend including a table showing the targets and ranges for the VIS**.

Risk

We have a few comments on section 2.3, which covers the policy on risk:

- Longevity is raised as a risk, but there is no detail on what, if anything, is being done about this, other than monitoring it. If the Employers have views on whether longevity risk should be hedged, this could be worth raising in the consultation.
- The SIP states that the Trustee maintains appropriate levels of currency hedging, but offers no detail as to what the levels of currency hedging are, or how the Trustee determines that this is appropriate. The Employers may wish to understand the Trustee policy in this area, particularly in the current market environment as overseas currency exposure (expressed in GBP terms) are particularly volatile given the current macro environment and geopolitical risks.
- Referring back to our earlier comment about the presence of US TIPS in the liability hedging assets, it could be worth including this as a risk, along with comments on how this is managed.

Defined Contribution

In section 3.3, which covers the policy on risk for the DC assets, this is brief compared to what we normally see for hybrid schemes. The Employers could ask for more detail on the DC risks and how they are managed especially given that the DC section has even greater prominence as part of the overall pension saving solution from 1 April 2022.

Investment Beliefs

The aim of this section is to give Aon's comments on the Trustee's investment beliefs

Introduction

The Trustee has provided an Investment Beliefs document which is referred to in the Statement of Investment Principles. Although we have reviewed the document, the Trustee does not require consultation with the Employers on this apart from the extent to which they interact with the SIP.

Clearly, the Trustee is entitled to believe as it chooses and producing such a document is a useful guide when making decisions. We comment below on any areas of potential concern to the Employers and areas where the VIS is not perhaps entirely consistent with the stated beliefs.

Aon's comments on the beliefs

- Belief 2 includes the following: "The right decisions need to be made by the right people in a timely manner within requisite controls, reporting, review, oversight and regulatory compliance arrangements." This is a sensible belief, but the Employers could ask for greater detail and transparency in order to see that this is happening in practice, in particular, what limits apply to USSIM.
- Belief 8 states that "Risk that is not sufficiently compensated should generally be avoided, hedged or diversified." It mentions inflation and longevity as the main risks. And yet, longevity is not hedged and inflation will only be 40% hedged. This implies that the Trustee expects these risks to be compensated. This is also relevant to belief 3, where inflation and longevity are not given as risk premia expected to generate returns. The Employers could ask the Trustee to expand on this.
- The Trustee has deleted the reference to volatility measures in belief 8. If they are just looking at the volatility of the assets, we regard it as positive that the Trustee is removing this measure (as it doesn't reference the liabilities). However, it may be useful for the Employers to ask if the Trustee is introducing a new measure to monitor risk within the portfolio.

Conclusions

The aim of this section is to set out our high level conclusions

- We are supportive of the direction of travel in moving from the current Reference Portfolio to the VIS. In particular, the use of leverage to achieve higher interest rate and inflation hedge ratios.
- We believe that the draft SIP, as updated, correctly reflects the proposed new strategy and complies with the legislation.
- We have raised some areas in relation to the VIS and the SIP which the Employers may wish to consider further.

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