Universities Superannuation Scheme
Statement of Investment Principles

1 April 2016

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Introduction

1. This statement details the principles governing the investment policy of the trustee of Universities Superannuation Scheme (the **scheme**) having taken advice from both its wholly owned investment manager and advisor, USS Investment Management Limited (the **internal manager**) and from suitably qualified external investment consultants and after consultation with the scheme's participating employers.

2. This statement complies with the requirements of the Pensions Act 1995, as amended, the Occupational Pension schemes (Investment) Regulations 2005 and the Occupational Pension schemes (Charges and Governance) Regulations 2015.

3. It is reviewed at least every three years, typically to coincide with the triennial valuation process, or sooner if there are significant changes to the investment policy or there is a material change in the scheme's funding position, or if the demographics of its membership or other circumstances which the trustee determines warrant a reconsideration of the strategic asset allocation and risk tolerance beyond those expressed in the latest Statement of Investment Principles.

4. The scheme is established by a deed of trust and has appointed Universities Superannuation Scheme Limited as the trustee (**the trustee**). The scheme currently provides defined benefit (**DB**) pension benefits and from 1 October 2016 will provide both DB and defined contribution (**DC**) pension benefits. This statement applies to both the DB and DC sections of the scheme and (once adopted by the trustee) will apply from 1 April 2016. The first section of the statement sets out the trustee's overall strategies and policies as are applicable to both the DB and DC sections of the scheme. Section two addresses DB specific considerations and section three DC specific considerations.

Section one – General

1. Governance

1.1. The trustee is ultimately responsible for the management of the scheme and its investments. It is supported by its committees and investment managers to whom it may delegate certain decisions and the facilitation of implementation of its policies and strategies.

1.2. The trustee retains responsibility for the investment strategy of the scheme but has delegated oversight of its implementation to its investment committee. The day to day management of the fund's investments, including the realisation of those investments, is delegated to the internal manager, which acts as both principal investment manager and advisor. This relationship is governed by an Investment Management and Advisory Agreement (**IMAA**) which covers discretionary investment management, as well as certain investment advisory and ancillary services. The internal manager is focused on delivering the investment requirements of the scheme and it may, if appropriate and within the terms of the IMAA, allocate investment mandates to external managers and agree fees for such services on behalf of the trustee. The internal manager recovers its costs from the fund through the trustee.

1.3. The trustee, supported by its investment committee under delegation, regularly reviews the assumptions and beliefs concerning investment risk and returns relative to the scheme's liabilities and member requirements, and the range of suitable investment options to make available to DC members. These investment and policy beliefs form the basis of the trustee's direction to its internal manager. The current statement of these investment beliefs in relation to both the DB and DC sections are set out in Annex 2, and the policy beliefs and the extensive body of research with USS members that has fed into the development of those investment beliefs will be published separately by the trustee.

1.4. The in house manager and the trustee company have, as a matter of regulatory guidance, a register of conflicts which specifies categories of potential areas of conflict and relevant mitigants. In line with the DB and DC Investment Beliefs (set out in Annex 2), it may be considered in certain circumstances that the internal management of portfolios is the optimal solution. The manager selection procedure ensures that the most appropriate solution, whether internal or external portfolio management or a combination is selected in the best interests of the scheme.

1.5. The trustee has a responsibility to ensure compliance with section 36 of the Pensions Act 1995 (a provision which relates to the choosing of investments), and does this through a number of different methods. Primarily these are monitoring the requirements of s.36 and the underlying Occupational Pension schemes (Investment) Regulations 2005 (both as amended) and embedding the requirements of that legislation (and any subsequent legislation) into any investment management agreements the trustee enters into, and also by having clear terms of reference for the board and sub-committees in relation to investment matters, with appropriate formal investment advice where required. The trustee also has a duty from 1 October 2016 to comply with the requirements of the Occupational Pension schemes (Charges and Governance) Regulations 2015.

2. Scheme objectives

2.1. The trustee is responsible for the stewardship of the scheme's assets. As described further below the trustee's investment strategy differs in order to reflect the differing requirements for each section of the scheme.

2.2. Its main objective in respect of the DB section of the scheme is to manage those assets in order to pay benefits as they fall due. This strategy is expressed in terms of a DB reference portfolio.

2.3. In respect of the DC section of the scheme the strategy is expressed in terms of reference portfolios which are used to implement the default strategy. The strategy is designed to deliver outcomes judged suitable for the majority of the membership expected in the DC section. This strategy is set based on an analysis of the member population, modelling of their likely pension outcomes, and detailed research of their preferences through focus groups and surveys. The default strategy sits alongside a range of self-select funds constructed to provide alternative investment strategies to the default, informed by the research with members, and to act as building blocks for options that can be tailored by individual members to meet their risk or return objectives, or their own personal investment beliefs

2.4. The internal manager will seek to outperform the reference portfolios for the DB and DC sections, within risk constraints set by the trustee.

3. General Investment Strategy

3.1. The trustee has delegated discretion to the internal manager to implement and manage a range of investments for both the DB and DC sections of the hybrid scheme within specified limits. The reference portfolio for the DB section and reference portfolios for the default strategy within the DC section, provide the internal manager with a benchmark against which it must carry out investment activity on behalf of the trustee to achieve specified investment outperformance objectives whilst remaining within specified limitations in terms of risk and illiquidity. The trustee's investment committee monitors the activity and performance of the internal manager relative to the reference portfolio for the DB section and the reference portfolios of the default strategy for the DC section.

3.2. In addition the investment committee selects a range of additional investment options to make available to members, taking account of the diversity of risk and return objectives, and personal investment beliefs, and ensuring that the number and risk profile of options offered reflects the needs of the membership. The trustee has delegated responsibility for selection of the underlying fund managers to the internal manager.

3.3. Subject to the relevant regulations and available investment infrastructure, the trustee may invest in a wide range of assets and apply a range of investment strategies, including quoted equity, government and non-government debt (including inflation-linked), currencies, money market instruments, commodities, derivatives or other financial instruments, as well as alternative strategies (such as absolute return strategies) and private market assets[1] including equity and debt, infrastructure and property. Investment may be undertaken directly, indirectly (e.g. via funds), in physical assets or using derivatives.

3.4. The trustee believes that, over the long-term, returns on risk-free assets (e.g. UK gilts) will be lower than those on return-seeking assets, including non-government debt, publicly traded equities, property and investment in alternative strategies and private market assets.

3.5. Within the DB section of the scheme the investment management approach and choice of managers, and the fund's asset allocation (across a diversified blend of return-seeking and risk-free assets), are intended to provide returns in excess of pure liability-hedging assets, while controlling the level of asset-liability risk.

3.6. Within the DC section of the scheme, the investment management approach and choice of managers and the asset allocation within both the default strategy and the self-select funds, are intended to provide members with a range of investment choices suitable for different risk preferences and investment beliefs, stages of their working and savings career and goals at retirement, whilst enabling members to switch easily between the funds provided. This could potentially limit the focus on alternative and private market investments given considerations of infrastructure and also market liquidity.

3.7. The internal manager has policies in place to ensure the assets held in the scheme are consistent with its investment mandates.

3.8. The expected return on the reference portfolios and other investments for both the DB section and the DC section will be monitored regularly by the investment committee and will be directly related to the specific objectives of each section of the scheme. These objectives are set out in Annex 2.

3.9. The trustee's policy is that there will be sufficient investments in liquid or readily realisable assets to meet cash flow requirements in foreseeable circumstances so that the realisation of assets will not disrupt the scheme's overall investments, where possible. The internal manager will ensure the scheme holds sufficient cash to meet benefit and other payment obligations.

4. Responsible investment

4.1. The trustee is an active and responsible steward of the assets in which it invests. The trustee expects this approach to both protect and enhance the value of the fund in the long-term.

4.2. The trustee therefore requires its investment managers to integrate all material financial factors, including corporate governance, environmental, social, and ethical considerations, into the decision-making process for all fund investments. The trustee does this in a manner which is consistent with the trustee's investment objectives, legal duties and other relevant

[1]Private markets assets refers to investments which are not listed on any public exchange and which may provide an opportunity to earn premium returns. USS is favourably placed to access such assets given its size and specialist investment expertise.

commitments e.g. the UN-backed Principles for Responsible Investment and the UK Stewardship Code.

4.3. Specifically, the trustee has instructed the internal manager, as its principal investment manager and advisor, to follow good practice and use its influence as a major institutional investor and long-term steward of capital to promote good practice in the investee companies and markets to which the fund is exposed.

4.4. The trustee also expects its internal and external investment managers to undertake appropriate monitoring of current investments with regard to their policies and practices on all issues which could present a material financial risk to the long-term performance of the fund such as corporate governance and climate change.

4.5. Effective monitoring and identification of these issues can enable engagement with boards and management of investee companies to seek resolution of potential problems at an early stage. The trustee tasks the internal manager to provide oversight of external managers in this respect. The trustee also aims to use its voting rights as part of its engagement work, in a prioritised, value-adding and informed manner. Where collaboration is likely to be the most effective mechanism for encouraging issues to be addressed, the trustee expects its investment managers to participate in joint action with other institutional investors as permitted by relevant legal and regulatory codes.

4.6. The investment committee monitors this activity on an ongoing basis with the aim of maximising its impact and effectiveness. The trustee's governance, social, ethical and environmental policies are also reviewed regularly by the board and updated as required to ensure that they are in line with good practice.

5. Additional voluntary contributions

5.1. Additional contributions paid by members to purchase additional benefits on a DC basis are separately identifiable from DB contributions and normal DC member contributions.

Section two- DB Section

1. Objectives

1.1 The trustee is responsible for the stewardship of the scheme's assets; its main objective is to ensure sufficiency of those assets in order to pay benefits as they fall due. In order to manage scheme funding the trustee has adopted three guiding principles which draw clear links between the support available from participating employers (the employer covenant) and scheme risk over the horizon of the covenant. The funding approach provides useful context for the Statement of Investment Principles and has an impact on the investment strategy. The funding principles can be summarised as follows:

- Over the period for which there is good visibility of the covenant (estimated to be 20 years) there should be no increase in USS's reliance on the covenant of the sector and, where opportunities arise, the reliance on the covenant should be reduced if possible.

- Over a three year period, there should be a high probability that the employer contribution rate will not exceed 18% of salaries and there should be a very high probability that the employer contribution rate will not exceed 21% of salaries. In the longer term the stability of the contribution rate should be increased.

- The balance sheet of the scheme's participating employers should be able to cover the impact which a rare set of adverse circumstances (tail risk) may have on the funding position of the scheme.

1.2 This section of the document is specifically concerned with the principles governing decisions about investments for the purposes of the scheme and it has been prepared in accordance with the Pensions Act 1995.

1.3 In order to express its investment approach, the trustee has adopted a strategic asset allocation, or what it refers to as a reference portfolio (with associated limits and constraints) which is a theoretical portfolio outlining the required returns and acceptable risk tolerance for the fund's assets. Whilst the terms of the reference portfolio are decisions for the trustee, its implementation and more granular decisions in respect of asset allocation are delegated by the trustee to the internal manager.

2. Investment beliefs

2.1 The trustee, supported by its investment committee under appropriate delegation, regularly reviews the assumptions and beliefs concerning investment risk and returns relative to the scheme's liabilities. These investment beliefs form the basis of the trustee's reference portfolio and the activities of its in-house investment manager and advisor. The current statement of these beliefs is set out in Annex 2.

3. Investment management structure

3.1 The trustee retains responsibility for the investment strategy of the scheme but has delegated oversight of its implementation to its investment committee. The day to day management of the fund's investments, including the realisation of those investments, is delegated to the internal manager, which acts as both principal investment manager and advisor. This relationship is governed by an Investment Management and Advisory Agreement (IMAA) which covers discretionary investment management, as well as certain investment advisory and ancillary services. The internal manager is focused on delivering the investment requirements of the scheme and it may, if appropriate and within the terms of the IMAA, allocate investment mandates to external managers and agree fees for such services on behalf of the trustee. The internal manager recovers its costs from the fund through the trustee.

4. Reference Portfolio

4.1 The ability of the scheme's participating employers to continue to support the scheme is known as the employer covenant. The strength of the employer covenant informs the trustee's view of how much risk it can reasonably take in delivering the benefits. The trustee monitors the employer covenant and will adjust its risk tolerance as appropriate. A number of other factors may affect the trustee's appetite for risk including the scheme's funding position, its cash-flow profile and its liability profile. The trustee monitors these factors regularly and may alter its investment objectives, risk tolerance and/or return target as appropriate in the event of any significant changes.

4.2 The trustee sets an investment strategy which is appropriate for the level of risk the employers are able to support. The trustee's investment strategy is expressed in terms of a reference portfolio which provides for an allocation of the scheme's assets across mainstream asset classes. The reference portfolio is a theoretical portfolio which broadly defines the appropriate asset allocation required to generate the scheme's target investment return within its risk tolerance. It does not define the actual assets the investment manager should invest in; it is simply a hypothetical portfolio which is expected to deliver the appropriate risk and return and against which performance can be measured. The reference portfolio is reviewed periodically and changes may be decided by the trustee board following a recommendation from its investment committee to ensure that it continues to be appropriate for the circumstances of the scheme and the trustee's objectives.

4.3 The trustee has delegated discretion to the internal manager to implement and manage a range of investments, within specified limits. The reference portfolio provides the internal manager with a benchmark against which it must carry out investment activity on behalf of the trustee to achieve a specified investment outperformance objective whilst remaining within specified limitations in terms of risk and illiquidity. The trustee's investment committee monitors the activity and performance of the internal manager relative to the reference portfolio. The composition of the reference portfolio as of January 2015 can be found in annex three.

5 Ensuring an appropriate level of scheme risk

5.1 The trustee believes that the amount of risk taken should be proportionate to the amount of support available to the scheme from the employers and specifically that there should be no *increase* in the reliance placed on the employer covenant over time.

5.2 It is the trustee's view, determined after consultation with the employer representatives, that with the right economic conditions, opportunities should be taken to reduce the amount of investment risk within the scheme. The trustee's target level of return is expressed in relation to a representative portfolio of gilts; and as at 31 March 2015 the target level of return is gilts +2.75% per annum. Over a 20 year period it is the trustee's objective to move to a target level of return of gilts +1.85% per annum with appropriate adjustments to the fund's risk and return profile as expressed in the reference portfolio. The trustee therefore aims to gradually increase the fund's allocation to risk-reducing assets and other risk hedging instruments over time.

5.3 The trustee has agreed an approach to this gradual reduction in investment risk (relative to liabilities), which includes the process for adjustments to the risk and return profile reflected in the reference portfolio, and the parameters for the degree of flexibility which exists around its implementation. The realised path of reduction in investment risk is not expected to be a straight line and will be dependent upon a number of factors. Some discretion will be applied to reflect variations in the scheme's funding position and to allow value to be gained from the timing of these changes, subject to the limits derived from the participating employers' ability and willingness to support the scheme. Decisions around reducing investment risk will at all times be subject to the overarching objectives which underpin the trustee's overall funding approach and specifically its funding principles as set out in this section.

6 Risk management

6.1 The trustee recognises that the scheme is exposed to investment, funding and operational risks and its approach is to integrate management of those risks throughout the business.

6.2 The internal manager, as the trustee's principal investment advisor, gives quantitative and qualitative consideration to operational, funding and investment risk when advising on investment policy, strategic asset allocation and investment strategy and manager selection.

6.3 It is the case that although it may be theoretically possible to select investments producing income flows broadly similar to the estimated liability cash flows, pension scheme trustees must also recognise the constraints and costs in seeking to do so.

6.4 In order to meet the long-term funding objective to pay the scheme benefits as they fall due, whilst managing the level of contributions and overall risk within acceptable parameters, the trustee takes a degree of investment risk relative to the scheme's liabilities. This targets a greater return than the liability matching assets would provide whilst maintaining a prudent approach, as required by the funding regulations, to meeting the scheme's liabilities.

6.5 The overall investment risk taken by the trustee is diversified across a range of different investment opportunities, which in aggregate are expected to provide excess return relative to gilts over time. The internal manager aims to diversify the asset allocation exposures geographically, by asset class and across active management strategies.

6.6 To reduce asset-liability risk (the risk of a mis-match between the characteristics of the assets compared with the liabilities), and/or to optimise the investment return for a given level of risk, the trustee may in certain circumstances take on additional exposure to liability-hedging assets without reducing its return-seeking assets. Importantly, this can result in the economic value of the total asset exposure exceeding the net assets of the scheme.

6.7 In terms of the management of currency risk, the trustee's policy within its reference portfolio is to hedge back to Sterling an appropriate proportion of the developed market currency exposure.

6.8 The key risks, relevant to the investment strategy, identified by the trustee are:

Risks	Definition, controls & mitigants
Asset-liability (matching) risk	Definition of the risk: the fund's assets do not achieve the expected returns relative to the growth in its liabilities. Controls and mitigants: diversify the return-seeking assets exposure. Increase the exposure to liability-hedging or liability-matching assets, in physical or derivative form (for example, infrastructure assets which can provide inflation-linked, steady cash-flows over a long time horizon).
Currency	Definition of the risk: the fund may have large exposures to overseas assets, denominated in currencies which may fluctuate relative to Sterling, the currency of the scheme's liabilities. Controls and mitigants: the continuous monitoring of currency exposure. The trustee's policy within its reference portfolio is to hedge back to Sterling an appropriate proportion of the developed market currency exposure.
Returns of the fund relative to reference portfolio	Definition of the risk: actual returns of the fund may lag behind those of the reference portfolio, as a result of the fund's active management, its costs or the inability to access desired exposures. Controls and mitigants: ensure that there is sufficient expertise and resource within the investment management function and use internal management teams to create greater alignment and prospective cost-effectiveness than active external managers. Use external managers where skills are not available in-house and where it is cost effective to do so. Adopt realistic assumptions regarding risk parameters, costs and implementation of specific asset strategies, with those assumptions being embedded in strategic benchmarking and in strategic decision-making. Implement on-going cost and investment performance monitoring.

Risks	Definition, controls & mitigants
Liquidity	Definition of the risk: the scheme may have insufficient funds to be able to meet its obligations as they fall due. Controls and mitigants: monitor the amount of cash and other liquid instruments held and maintain robust and timely disinvestment procedures in order to ensure that all liabilities e.g. benefits, collateral, margin, expenses and other cash calls can be paid as they fall due. New investments in illiquid assets may not be made above an upper limit set by the trustee on the proportion of such assets in the fund.
Operational	Definition of the risk: loss or error arising from the failures of people, processes and systems, or disruption due to an external event. Controls and mitigants: operational risk is managed at all levels in the organisation as appropriate processes and controls are integrated into business activities. Key controls and mitigants include segregation of duties, organisational structures, appointment of external custodians, authorisation routines, physical access, supervisory controls, personnel management, logical access controls and managerial oversight and review.
Strength of the employer covenant	Definition of the risk: the scheme's participating employers may be unable to provide the required level of future support to the scheme. Controls and mitigants: close and continuous monitoring of the employer covenant using the trustee's own experience and knowledge of the sector and through engagement with Universities UK, the representative body of the employers for scheme funding purposes, and other representative and funding bodies (in particular with the Higher Education Funding Councils for England, Scotland and Wales) and when appropriate through more detailed independent assessment to ensure the trustee can monitor the ability of the participating employers to make contributions at a level necessary to fund the scheme's benefits and when appropriate modify the funding approach.

7 Types of investment that may be held

7.1 Subject to the relevant regulations, the trustee may invest in a wide range of assets and apply a range of investment strategies, including quoted equity, government and non-government debt (including inflation-linked), currencies, money market instruments, commodities, derivatives or other financial instruments, as well as alternative strategies (such as absolute return strategies) and private market assets[2] including equity and debt, infrastructure and property. Investment may be undertaken directly, indirectly (e.g. via funds), in physical assets or using derivatives.

7.2 The trustee believes that, over the long-term, returns on risk-free assets (e.g. UK gilts) will be lower than those on return-seeking assets, including non-government debt, publicly traded equities, property and investment in alternative strategies and private market assets. The investment management approach and choice of managers, and the fund's asset allocation (across an appropriately diversified blend of return-seeking and risk-free assets), are intended to provide returns in excess of pure liability-hedging assets, while controlling the level of asset-liability risk.

7.3 The internal manager has policies in place which ensure the assets held in the fund are consistent with the investment mandate.

Section three- DC Section

1. Objectives

1.1 The key objectives of the trustee are as follows:

- To establish a default strategy which will offer an investment solution suitable for the majority of members expected to be saving into the DC section, informed by extensive research with members;
- Alongside the default strategy, provide a range of self-select funds to meet the needs and preferences of most members as regards level of risk and return and different investment beliefs throughout their working lives;
- To provide both the default strategy and the range of self-select funds at a competitive price, benefiting from a subsidy from the employer of the administration and running costs and (subject to a cap) investment management charges, thus allowing members to benefit from retaining a higher share of the investment growth on their savings;
- To implement and deliver a clear and compelling communication and engagement strategy that reflects the needs of members, specifically taking into account the hybrid nature of the scheme and the investment arrangements that are provided;

[2] Private markets assets refers to investments which are not listed on any public exchange and which may provide an opportunity to earn premium returns. USS is favourably placed to access such assets given its size and specialist investment expertise.

- Where agreed by key stakeholders, to make available to members the flexibilities in relation to the DC section, particularly concerning the new freedoms around how DC savings can be accessed and options at retirement;
- To put in place a robust governance framework that will allow the ongoing suitability of the DC section, including the suitability of the investment arrangements, to be monitored over time.

1.2 In order to assist the trustee in building and reviewing the DC section's investment arrangements, the objectives above were expanded into a set of DC Investment Beliefs, found in Part B of Annex 2, and are supported by a set of Policy Beliefs and a comprehensive programme of research with USS members.

2. Risk

2.1 The trustee has considered investment risk from a number of perspectives, and in particular has identified the following key risks:

- The risk that the investment return over members' working lives will not keep pace with inflation and does not sustain members' spending power in later life, whether DC savings are converted into capital or income at retirement;
- The risk that volatility associated with growth assets discourages members from further savings into the DC section;
- The risk that investment market movements in the period immediately prior to retirement lead to a substantial reduction in the anticipated level of retirement benefits;
- The risk that the investment profile of the default strategy is unsuitable for the requirements of some members;
- The risk that the wider self-select range of investment options offers either too little or too much choice to members and the corresponding implications of doing this;
- The risk that the investment vehicles in which monies are invested underperform the expectation of the trustee;
- The risk that the overall investment structure provided to members is behind "best practice" in the market.

2.2 In addition to the higher-level risks identified in Section 2.1, the trustee has also identified a number of other more specific risks that have been considered in building and reviewing the overall investment solution. These include the impact of market risk, foreign currency risk, liquidity, interest rate and inflation risk, credit risk and also wider operational risks.

2.3 The trustee has put in place a structure both to monitor these risks and to take action where the trustee believes it appropriate to do so. The role of the internal manager is critical here in providing the trustee with regular quantitative and qualitative assessments of all of the risks detailed in Section 2 and in implementing appropriate mitigation strategies.

3. Investment Arrangements

3.1 The trustee makes available a default strategy for members of the DC section. It is a form of lifestyle strategy. Lifestyle strategies are designed to meet the conflicting objectives of maximising the value of member's assets at retirement and protecting the value of accumulated assets, particularly in the years approaching retirement.

3.2 The default strategy manages investment risks through diversified reference portfolios consisting of traditional and alternative assets. Risk is not considered in isolation, but in conjunction with expected investment returns and outcomes for members. In designing the default strategy, the trustee explicitly considers the trade-off between risk and expected returns and continues to monitor these risks through ongoing reporting.

3.3 Typically, a proportion of members will actively consider and choose this option because they feel it is the most suitable for them. However, the majority of members are not expected to make active investment decisions based on market experience and are therefore invested in the default strategy by "default".

3.4 The objectives of the default strategy, and the ways in which the trustee seeks to achieve these objectives, are detailed below:

- To focus particularly on generating returns in excess of inflation during the "growth phase" of the strategy whilst mitigating downside risk.
- To provide a strategy that gradually reduces investment risk in the "consolidation phase" for members as they approach retirement.
- To provide exposure, at retirement, to a more stable portfolio of assets that are broadly suitable for how members may take their retirement benefits.

3.5 In addition to the default strategy, the trustee makes available an alternative lifestyle option reflecting the fact that the member research indicated that a large group of the membership has specific objectives around ethical investing. This is built along similar principles to the default strategy but with a specific ethical tilt. As well as this, a range of self-select funds are also offered to members.

3.6 Taking into account the demographics of the Scheme's membership and the trustee's views of how the membership is likely to behave at retirement, and based on extensive analysis of the active member population and modelling of members expected pension outcomes, the trustee believes that the current default strategy and self-select range is suitable and will continue to review this over time, at least triennially, or after significant changes to the Scheme's demographic, if sooner.

4. Day-to-Day Investment Management

4.1 The internal manager, with support where required from external investment consultants, will select investment managers for the DC section under the terms of the IMAA. Assets may be managed in both segregated mandates and within pooled vehicles. Managers will be monitored by the internal manager with periodic reporting to the Investment Committee. Further detail around this is contained in Section 1 of this document.

Annex 1: Glossary of terms

Absolute return strategies

The objective of absolute return strategies is absolute (positive) returns regardless of the direction of the relevant financial markets. To meet this objective, such strategies typically involve opportunistic long and short positions in selected instruments with zero or limited market exposure. In statistical terms, absolute return strategies should have very low correlation with the market return.

Additional Contributions

The facility within the scheme for making additional contributions to build up additional pension saving. The contributions are invested in line with member elections.

Alternative assets

Alternatives are investment products other than traditional investments of listed equity, stocks, bonds, cash or property. The term is used for financial or physical assets such as commodities, timberland, private equity, hedge funds or absolute return strategies, infrastructure and venture capital.

Assets

A financial or physical product or resource which has some economic value, this includes any investment product the trustee holds such as listed equity, stocks, bonds, cash, property and alternative assets as defined above.

Benchmark

A yardstick against which the investment policy or performance of a fund manager(s) can be compared, usually an index relating to the particular assets held.

Default strategy

Within the DC section, this is the investment option that is provided to members who do not make a choice as to how they wish their assets to be invested.

Derivatives

A derivative is a financial instrument whose value is dependent on one or more underlying assets. In practice, it is a contract between two parties that specifies conditions (especially the dates, resulting values of the underlying variables, and notional amounts) under which payments are to be made between the parties. The most common types of derivatives are forwards, futures, options and swaps. The most common underlying assets include commodities, stocks, bonds, interest rates, currencies and related indices.

Employer covenant

This is used to refer broadly to the participating employers' ability to continue to support the pension scheme in the long-term and in particular in the event that experience, including investment experience, is worse than the assumptions which have been made for funding purposes. In particular, it considers the participating employers' ability to increase contribution requirements should the need arise.

Equities

Equities represent the ordinary share capital of a limited company. They share in the distribution of corporate profits via the payment of dividends after interest has been paid to preference shareholders and other creditors. In the event of default, equity investors rank behind all other creditors to the company and carry the right to the residue of a company's assets after it has paid all its creditors. Public equities are traded on registered stock exchanges with transaction prices and volumes visible to all market participants. Private equity is traded directly with a counterparty and there is no obligation for transaction details to be disclosed.

Government debt

A government debt obligation backed by the credit and taxing power of a country, which for prudent and credit-worthy countries entails little risk of default. Government debt (Treasury securities or gilts) include short-term bills, medium-term notes, inflation linked debt and long-term bonds.

Gilts

These are the simplest form of UK government bond. A conventional gilt is a bond issued by the UK government which pays the holder a fixed cash payment (or coupon) every six months until maturity, at which point the holder receives his final coupon payment and the return of the principal.

Implemented portfolio

The implemented portfolio is the spread of assets and derivatives in which the internal manager or the appointed external managers for the scheme have invested at any time. The implemented portfolio aims to outperform the returns on the reference portfolio on an annualised basis over rolling five year periods and to do so within risk and other constraints set by the trustee.

Index tracking

An investment technique where a portfolio or fund follows a particular stock market index as closely as possible. The value will go up and down in line with the index it is matching.

Index-Linked Gilts

UK government bond where the interest payments and the final redemption proceeds are linked to inflation – issues to date have been linked to the Retail Price Index. Such gilts can provide protection against inflation.

Liability hedging assets

Liability hedging seeks to better align a pension fund's assets with its liabilities by hedging, in whole or in part, the fund's exposure to changes in the underlying drivers of liability valuation, in particular in interest rates and inflation. This involves investing in assets which are expected to generate similar cash flows to the liabilities. Historically, UK government bonds have been used by pension funds as a partial hedge for interest rate risks but recently derivatives, such as swaps, have also been used.

Lifestyle Strategy

This represents an option within the DC section of the scheme where the investment strategy is adjusted in line with how far a member is from retirement. This adjustment occurs automatically without any input from the member, based on the member's scheme retirement age, the expected date for which (in relation to the DC section) can be changed by the member. The scheme's default strategy is structured as a lifestyle strategy.

Liquidity

The degree to which an item can be bought or sold – items which are easily bought or sold are 'liquid' and items which are more difficult to buy and sell are 'illiquid'.

Liabilities

In the context of the scheme, the liabilities are the amount of pension benefits which have been earned by members in the scheme to date, and which are due from the scheme both now and in the future.

Long position/short position

A long position is the result of purchasing an asset when it is expected that its value will increase; a short position is the result of selling an item (that is not currently owned) when it is expected that its value will fall.

Money market instruments

Financial instruments with high liquidity and very short maturities. These instruments are a means for borrowing and lending in the short term, from several days to just under a year. Money market securities consist of negotiable certificates of deposit (CDs), bankers' acceptances, Treasury bills, commercial paper, local government or municipal notes, federal funds and repurchase agreements (repos).

Non-Government debt

Non-government debt, debt issued by corporate and other institutions, may be riskier (i.e. carry more credit risk) and less liquid (i.e. less readily tradeable) than the debt of credit-worthy governments. Short-term debt is issued as commercial paper; long-term debt is issued as bonds.

Participating employers

All employers which contribute to the scheme – also referred to in this document as 'the employers'.

Performance fees

A fee charged by an investment manager where the amount payable is linked to the outperformance of the assets under management relative to an agreed benchmark. Performance fees are intended to create a strong alignment of interest between the investment manager and its client.

Private markets assets

Investments which are not listed on any public exchange, and include private equity, private debt, infrastructure and property. Private markets assets provide opportunities to earn enhanced returns including a premium for illiquidity and/or to gain additional diversification.

Reference Portfolios

Theoretical portfolios comprising standard market assets set by the trustee, which are expected to achieve the required returns to pay benefits to members, under the DB section, and to meet member objectives within the DC section, without assuming additional returns from active management. These represent the benchmarks for USS Investment Management Limited as investment manager to the scheme in respect of the DB and DC sections. The investment manager is tasked with achieving additional outperformance whilst observing the relevant constraints set by the trustee.

Return-seeking assets

Assets with positive risk premia, i.e. long term returns expected to exceed risk free assets, which compensates for their exposure to greater risk. Equities are a return-seeking asset.

Risk

Risk is the potential for loss, or for not meeting objectives. It reflects the scope for negative outcomes, which is often measured in terms of the likelihood and the potential impact of these outcomes. For a hybrid pension scheme such as USS, risk manifests itself in many ways such as: in investments whose value falls below target; in liabilities whose value may increase more than expected; in the required employers' contributions which may be greater than budgeted; and in varied manifestations of operational, legal and regulatory risks. Risk is measured in different ways depending on the objective of the measurement. These differences are characterised in terms of the metric (e.g., asset value, deficit value, or funding ratio), the time horizon (e.g., one month, one year, or 30 years) and the statistical properties (e.g., standard deviation, or 95thpercentile of the distribution of outcomes).

Risk-reducing assets

Assets held to reduce the amount of risk in the scheme's portfolio; these are also called liability hedging assets or matching assets. Government bonds are an example of risk-reducing assets, as are inflation and longevity linked instruments. The expected return on risk-reducing assets is lower than that on return-seeking assets.

Self–Select Investment Options

For members not fully invested in the default strategy within the DC section, a wider range of investment options is available for members to choose from. This is known as the self-select range and covers a variety of different asset classes and risk preferences.

Strategic asset allocation

A strategic asset allocation specifies the proportion of various asset classes in a portfolio, designed to provide an appropriate risk/return profile over a longer period of time. A strategic asset allocation framework will specify a range of allocations appropriate for various levels of risk tolerance. For example, those with lower risk tolerance will tend to have lower exposure to more volatile, higher-risk assets such as stocks and commodities, and higher allocations to less volatile, lower-risk assets, including bonds and cash.

Annex 2: Investment Beliefs

Part A: Defined Benefit Investment Beliefs

The Universities Superannuation scheme (USS) exists to pay the benefits due to its members. The capacity for the trustee to take investment risk, in relation to the defined benefit section is based on the covenant of the employers and its associated tolerance for the level and variability of contributions. The beliefs of the trustee guide the scheme's governance and strategic management, as well as the alignment sought between the trustee and its agents. They help provide an anchor for considered and consistent investment decisions.

1) ***The ability to pay the scheme's benefits as they fall due depends on developments that no set of assets matches perfectly. Furthermore expected returns for the fund can be improved sufficiently, after costs, to justify taking risk above the minimum practically achievable.*** The appropriate horizon for USS's investment risk-taking depends on the duration of the liabilities, the profile of projected cash flows and the deficit recovery and contingency plans for the scheme (the sponsor covenant).

2) ***High quality governance and decision making is critical to success. 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.*** The trustee board focuses on policy setting, including risk and return objectives, appropriate delegation, constraints and reporting requirements. In order to fulfil their obligations, the trustee sets a high-level strategic asset allocation or 'Reference Portfolio' which frames the required return and acceptable risk for the fund. Implementation and more granular asset allocation decisions are delegated to USS Investment Management.

3) ***Strategic Asset Allocation and the timing of material changes are the most important drivers of the fund's financial outcomes.*** The asset allocation process balances diversified risks against the expected additional returns for these risks. The main sources of return for bearing risk ('risk premia') are equity, credit, illiquidity, duration, inflation, volatility and insurance.

4) ***The investment strategy has a relatively long term horizon in line with the covenant and liability profile; the trustee may justifiably hold some investments over many years.*** The probability of 'return-seeking' assets outperforming 'risk-free' assets increases as the investment horizon lengthens, though the sources of risk premia do not provide extra return over all time periods.

5) ***Private markets provide investment opportunities and structures not available in public markets; which may provide additional returns in excess of those provided by public markets or returns which are primarily helpful in meeting the scheme's liabilities.*** This type of investment enables additional returns (an Illiquidity premium) and diversification benefits to be accessed.

6) ***Diversification through effective portfolio construction allows risk to be mitigated and spread across a range of factors.*** It reduces the adverse impact on the scheme of any one risk but there are limits on overall risk-reduction from diversification and scenarios in which it may be less effective.

7) ***Risk is multi-faceted: it is best understood and managed using multiple approaches and at all times with respect to the liabilities.*** Not all investments are equally risky to all investors.

8) ***Risk that is not sufficiently compensated should generally be avoided, hedged or diversified.*** The key investment risk for the trustee is that returns fall materially short of what is required over the investment horizon. Volatility, though an imperfect measure of shortfall risk, is a useful metric for estimating portfolio risk and for use in recovery and contingency plans. Risk in the scheme's liabilities is concentrated in inflation and longevity and, by virtue of the cash flow valuation process, in gilt yields.

9) ***Liability hedging strategies and some associated leverage can help to reduce the risks posed by the scheme's liabilities,*** though there are inherent risks in leverage and appropriate controls are required.

10) ***Active management can add value, after accounting for costs.*** The behaviours and constraints of market participants result in inefficiencies and mispricing in most markets some of the time and these inefficiencies can be accessed for profit by skilled managers. The use of active, passive or customised indexation approaches is based on the balance of expected advantages. Commonly used market indices are not always 'safe' nor always the most relevant comparators.

11) ***As a large fund, there are cost, alignment and time-horizon advantages in investing primarily via in-house investment capability***; however external managers will be used where internal resources cannot be justified or obtained, and suitable alignment can be found.

12) ***Investing responsibly and engaging as long term owners reduces risk over time and may positively impact fund returns.*** This involves engagement as active owners of assets, focused on sustainability and good corporate governance. The fund's interests are further protected from adverse impacts by collaboration with like-minded investors and engagement with government, industry and regulators.

Part B: Defined Contribution Investment Beliefs

The Universities Superannuation Scheme (USS) provides members with a hybrid DB/DC plan, with a defined benefit (DB) plan and a defined contribution (DC) plan respectively up to and above a salary threshold. The employers also provide a matching contribution for up to 1% of salary contributed additionally by employees into the DC section.

The beliefs of the trustee articulate key assumptions and investment principles underpinning the design and ongoing maintenance of the DC plan, in order to:

- assist members in delivering their desired retirement outcomes
- convert the risk appetite and return requirements of members into a suitable investment design, and
- provide sufficient choice to reflect the diversity of requirements and the uncertainty faced by most members regarding the timing and quantum of those requirements.

The beliefs guide the scheme's governance and strategic oversight, the range of investment strategies available to members, their considered and consistent implementation, as well as the alignment sought between the trustee and its agents.

1) ***The investment structure will take into account the hybrid DB/DC benefit design and overall engagement objectives.*** Primary areas of engagement include assisting members in understanding the purpose of the plan, encouraging them to save for their retirement and providing education around their retirement options. The structure of the investments and the associated explanatory material will reflect these aims.

2) ***The trustee will provide a range of investment strategies, including default and self-select funds.*** These are designed to meet the needs of a wide range of representative members of the scheme, based on membership information. For the large number of scheme members who typically do not themselves make a specific selection, the default fund strategy will act as the members' selection. It aims to deliver a high quality investment solution based on the trustee's understanding of representative members' characteristics, circumstances and, as possible, their attitudes to risk and return.

3) ***The investment structure should reflect the benefit flexibility that members now have up to and into retirement.*** From April 2015, members of a DC scheme have much more flexibility in how they access their retirement benefits (e.g. cash, annuity, drawdown). The investment structure will be developed over time to allow for this flexibility through the provision of pre-built lifestyle strategies and/or options within the wider self-select range. Consideration will also be given to joining up with the post-retirement options that are provided as this market evolves.

4) ***For the default fund strategy, asset allocation will adjusts around a glide path consistent with assumed member risk tolerance throughout their savings life-cycle.*** The default fund strategy cannot capture all differences across individual members. However, a higher risk tolerance may be assumed when members are far from retirement, with the aim of increasing expected real returns and retirement wealth. In later stages of the savings lifecycle, the accumulated investment pots will typically be greater and the ability to make good any material losses is reduced. The default fund investment strategy and the self-select fund

options provided should also align as much as possible with how the member is likely to use their savings at and into retirement.

5) ***The self-select-fund range should offer a degree of customisation.*** The funds available for self-selection should allow individual members to reflect a reasonable range of preferences, for example for strategies offering higher or lower risk, 'Sustainable Investment' or compliance with Sharia law.

6) ***High quality governance and decision making is critical to success.*** 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. The trustee board focuses on setting high-level strategic asset allocation guidelines for the default fund strategy and providing a suitable range of self-select investment options to meet the risk and return objectives of most members, as well as appropriate delegation, controls and reporting requirements

7) ***Asset Allocation and the timing of material changes are important drivers of a fund's financial outcomes.*** The asset allocation process for the default fund strategy balances diversified risks against the expected additional returns for exposure to these risks. The main sources of return for bearing risk ('risk premia') are equity, credit, illiquidity, duration, inflation, volatility and insurance. The asset mix should be reviewed periodically, for suitability relative to evolving investment objectives and as current valuations strongly influence future investment returns and risk of loss.

8) ***For most members, particularly at earlier stages of the savings life-cycle, the relevant investment time horizon, up to (and beyond) retirement, is relatively long-term. As such, the default fund strategy and some self-select funds may justifiably hold a large proportion of growth assets relative to defensive assets.*** Though underperformance may occur over periods of time, the probability of 'return-seeking' or growth assets outperforming 'risk-free' assets increases as the investment horizon lengthens. The chief source of long-term investment returns is participation in economic growth, via equity markets or otherwise. These returns may be accessed in public or listed markets and, if subject to suitable investment structures being available, via private markets (such as direct investments in infrastructure).

9) ***Diversification through effective portfolio construction allows risk to be mitigated and spread across a range of factors.*** This reduces the adverse impact on the member of any one risk. There are limits, however, on overall risk-reduction from diversification and scenarios in which it may be less effective.

10) ***Risk is multi-faceted: it is best understood and managed using multiple approaches***. This spans different definitions and ways of estimating risks (e.g. volatility and/or downside risk over different time-horizons) and different member circumstances (e.g. balance between DB and DC benefits). Member risk appetite is expected to vary across their savings lifecycle. For the default fund, reasonable assumptions must be made on the requirements of member cohorts across their life-cycle. However, not all investments are equally risky to all investors. The individual member may choose to self-assess their risk appetite and self-select within the DC fund range.

11) ***Active management can add value, after accounting for costs.*** The behaviours and constraints of market participants result in inefficiencies and mispricing in most markets some of the time and these inefficiencies can be accessed for profit by skilled managers. The use of

active, passive or customised indexation approaches is based on the balance of expected advantages and careful consideration of the associated costs. Commonly used market indices are not always ‘safe’ nor always the most relevant comparators.

12) ***The scheme will seek to maximise value for money for stakeholders.*** To the extent possible and desirable, the existing USS DB capabilities and scale economies will be leveraged to achieve this objective. This may involve investment management by the internal manager (USS Investment Management Limited) or cost concessions in the context of the overall USS business relationship with external managers or service providers.

13) ***Investing responsibly and engaging as long term owners reduces risk over time and may positively impact fund returns.*** The trustee expects managers to engage as active owners of assets, focused on sustainability and good corporate governance as appropriate for the assets being managed. The DC member’s interests are further protected from adverse impacts by collaboration with like-minded investors and engagement with government, industry and regulators. Investment managers, as well as investee companies, should be governed and incentivised in the long-term interests of their investors. DC members may additionally choose to express specific beliefs within the scope of the self-select fund range.

Annex 3: DB Reference Portfolio (as at 1 January 2015)

Asset class	Reference Portfolio
Equities	63.0%
Credit	12.5%
Property	7.5%
Liability-hedging assets (Gilts)	17.0%

Additionally to reduce asset-liability risk (the risk of a mis-match between the characteristics of the assets compared with the liabilities), and/or to optimise the investment return for a given level of risk, the trustee may in certain circumstances take on additional exposure to liability-hedging assets without reducing its return-seeking assets. Importantly, this can result in the economic value of the total asset exposure exceeding the net assets of the scheme.