Note 2 on USS 2020 valuation
Security of accrued benefits

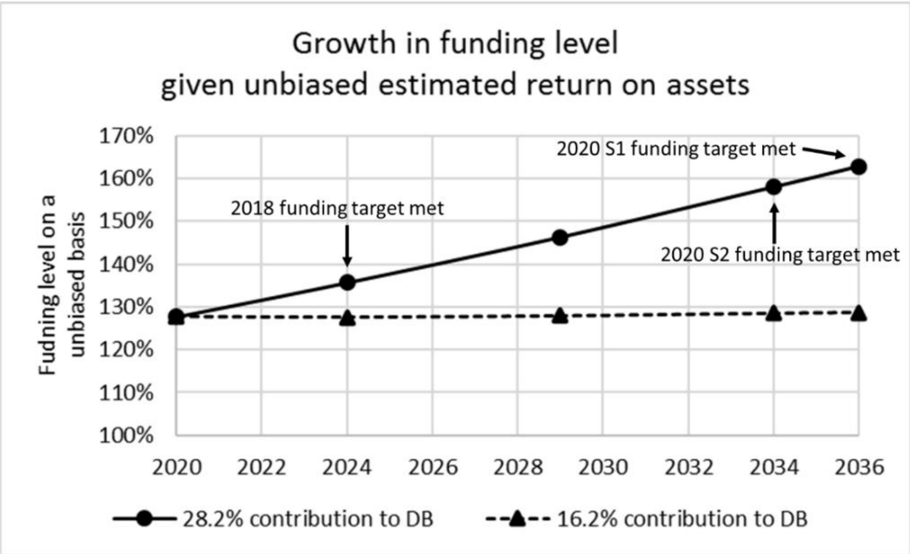
This note is provided to the University and College Union. It is one of several notes in which we will be examining different aspects of the valuation of the Universities Superannuation Scheme (USS), such as:

- Funding and prudence
- Risks to the accrued benefits
- Investment strategy

In this note, we look at risks to the accrued benefits. The USS has less funds than the Trustee would like to meet their chosen standard of prudence. It will take a while to grow the funding level to the standard the Trustee is seeking to achieve. In the meantime, are the accrued benefits being put at any greater risk?

The funding level is expected to grow

We saw in our first note on funding and prudence that the USS is already on a path of a brisk expected improvement in the funding level. As the funding level improves, the payment of the accrued benefits is at less risk. More money in the USS must mean a higher probability of paying the benefits in full from the resources in the Scheme without further recourse to future contributions than if there were less money in the USS.



Does accruing more benefits make it more difficult to provide the existing benefits?

This is a key anxiety of the Trustee and The Pensions Regulator. If, with each passing year, the USS accrues another year’s worth of liability to pay benefits, are we not adding to the difficulty?

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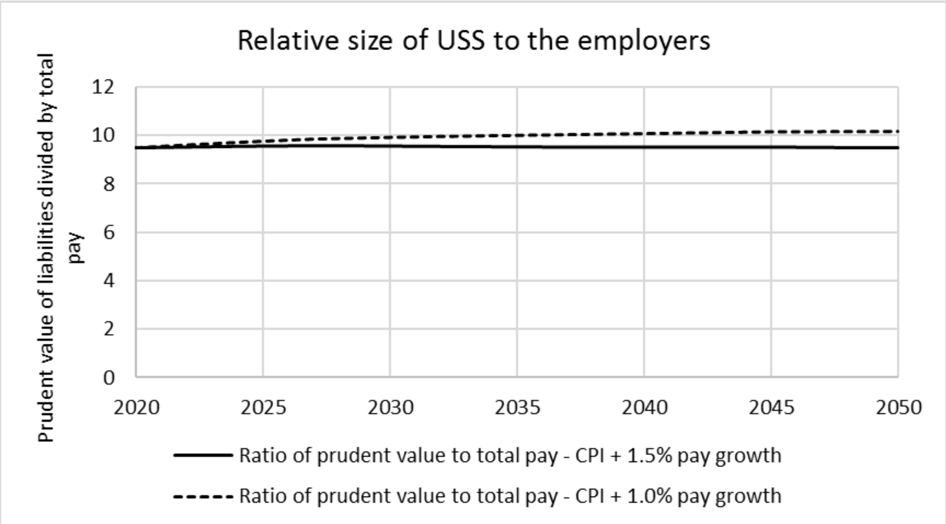
The answer to the question is not necessarily, because with each passing year a year's benefits are paid out. The pay out of pensions and cash sums subtracts from the liabilities, and the net effect of the addition of accrual and the subtraction of benefits might be either growth or shrinkage of the USS's liabilities.

We also need to consider growth or shrinkage of the participating employers. It is change in the relative size of the pension scheme to the sponsoring employers which is important. If the employers shrink in size, it can get very difficult for the employers to support a funding shortfall on pension liabilities built up when the employers were larger. This is one of the reasons why prudent funding is important: to have sufficient resources available to cope with an adverse change such as this.

To examine this, we have projected the ratio of the value placed on the liabilities to the pensionable salaries of the active members. We use pensionable salaries as an indicator of the size of the employers, on the premise that the ability to pay salary in a service industry is indicative of the size of the employer. If the ratio is increasing, it indicates that the USS is growing faster than the employers and potentially getting more burdensome to the employers.



We have used the same assumption for pensionable pay growth (CPI + 1.5%) as used by the USS in the recovery plan, and this assumption is used both in the projection of pension liabilities (that is the future benefits which accrue) and in the projection of the size of the employer, so both parts of the ratio are projected consistently.

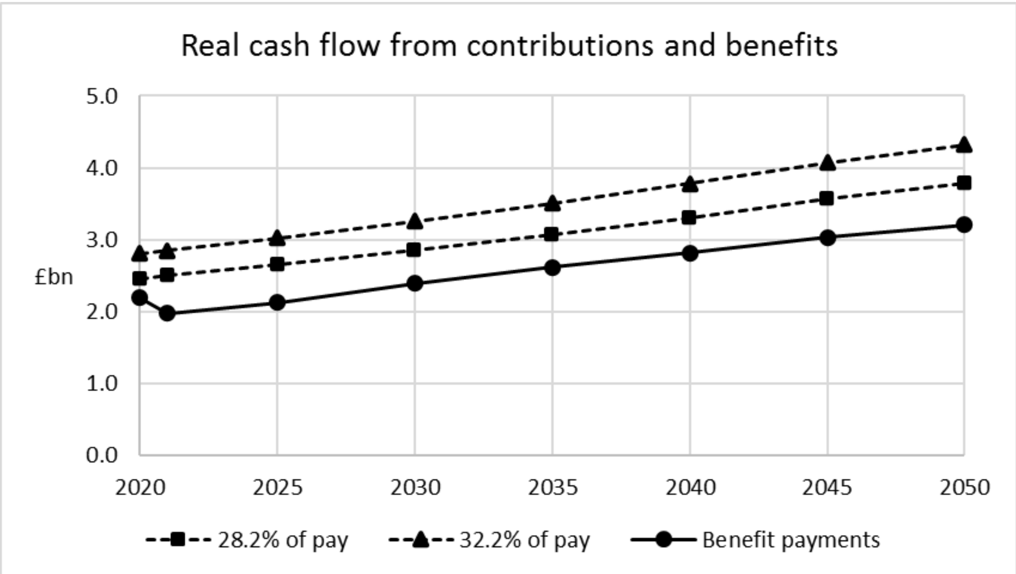
Two points are worth noting. First the use of pensionable salaries as an indication of the size of the employers may be an underestimate if there are significant numbers of employees who are not members of the USS. This may be because they have opted out of the Scheme or because their contract makes them ineligible. Second we note that in the "Update on the 2020 valuation" paper, USS use payroll growth of CPI + 1.5% for deficit recovery contributions but CPI + 1% for the calculation of affordable risk capacity. The inconsistency is explained by the "increased uncertainty in projecting over longer horizons". For the purpose of projecting relative sizes, it is not important what assumption is used but the need for consistency is important. Whilst our projections use CPI + 1.5% pensionable salary growth, if actual increases are lower, this would affect both the future accrual of benefits and the size of the employer.

If pay grows at CPI + 1.5% pa, we see that the ratio of the value placed on liabilities to pensionable pay is very nearly level at around 9.5x (i.e. the multiple of the value placed on the liabilities to the total pensionable salaries of all the sponsoring employers). If pay grows at CPI + 1.0% pa, we see that the ratio of the value placed on liabilities to total pensionable salaries grows very slowly, from 9.5 to 10.2 over 30 years.

The continuation of benefit accrual is not greatly changing the size of the USS relative to the size of the employers. Meanwhile, over the same time period, the funding level of the USS is expected to improve rapidly. Overall, the security of existing benefits is not being put at greater risk by growth of the USS relative to the size of the employers, even with continuing benefit accrual.

On the other hand, does accruing more benefits help to provide the existing benefits in any way?

Whether contributions to defined benefits are at the present rate of 28.2% of pay or at 32.2% of pay (as scheduled from October 2021), either way, contributions coming in exceed the benefits being paid out. This situation is expected to persist. The chart below shows the expected cash flows from contributions and benefits, in real terms relative to CPI. Pensionable pay is assumed to grow at CPI + 1.5% pa.



The momentary higher benefit payments in 2020 is a result of the assumption that all members over normal retirement age retire immediately.

This is not to say that the USS is reliant on contributions for future service to pay benefits for past service. We can still think of the contributions coming in being invested to be spent later on benefits, and the money for pension payments being disinvested. In reality because money is fungible, invested assets can stay invested (which allows the Trustee to invest in more volatile assets than might otherwise be the case) and cash from contributions can be used to pay today's benefits. The point is that while contributions exceed benefit payments an ongoing USS cannot run out of money.

The risk to accrued benefits arises after the USS closes to accrual, if it does in the future, which may put it in a position of payments on benefits exceeding the income from any deficit contributions and investments. After closure, the question arises of whether the assets might run out before all benefit payments are made, assuming no further contributions from the employers. This risk is reduced by having more assets in the scheme, and the assets can be grown by a combination of contributions and investment returns. This is a question which we will examine in another note.

Being open ensures that the USS cannot run out of money, and the non-increasing ratio of the size of the USS to the size of the employers shows that greater problems are not being stored up for the future. These two points together show that remaining open while the funding level is increased does not put the accrued benefits at additional risk.

Actuarial standards

The following Technical Actuarial Standards apply to this work: TAS 100: Principles for Technical Actuarial Work and TAS 300: Pensions. We confirm we have complied with their requirements.

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