BARNETT WADDINGHAM
beyond the expected

Survey of universities' disclosures

Accounting for pension costs

RISK | **PENSIONS** | INVESTMENT | INSURANCE

I am pleased to present the results of our tenth survey of the assumptions adopted by UK universities for determining the value of their pension liabilities for accounting purposes.

The year 2020 was one of unprecedented challenge for the country as we all grappled with the impacts of the coronavirus pandemic. The higher education sector was no exception to this, and this is reflected in the results shown here.

From a financial point of view, the initial impact of the pandemic was market turmoil, falling bond yields and plummeting equity values. Some of this had subsided by the time the accounting disclosures were prepared, and markets have made good progress since that time, but as at 31 July 2020 yields were low and markets had not fully recovered, so the accounting disclosures paint a perhaps unduly harsh picture.

Looking at the main pension schemes to which the sector is exposed, the increased contribution requirements for the USS came through in full, and are reflected in the results we have surveyed. A new valuation is currently underway for USS and preliminary results suggest that very substantial further cost increases could be on the way. We may start to see the impact of this by the end of the year.

However, the main focus of this survey remains the "Self-Administered Trusts" (SATs) – standalone defined benefit schemes operated by a number of universities for non-academic staff. The survey looks at the significance of these schemes in the context of the overall finances of the university, as well as at the assumptions used in their FRS102 disclosures as at 31 July 2020.

The results of this survey show that the size of pension deficits increased very significantly, by £800m over the year, mainly due to sharply falling bond yields pushing up liability values combined with falls in the value of many asset classes.

This survey is based on data in the published accounts of universities with financial years that ended on 31 July 2020. The figures in this survey are based on a sample of 35 universities whose accounts showed they operate SATs. We have included the figures for 2019 to compare with the 2020 data as part of our analysis.

We hope that this analysis continues to be helpful to universities formulating their own assumptions under FRS102 for future disclosures. With yields continuing to fall and ever increased levels of uncertainty around financial markets and within the sector as a whole, the impact of pensions on university finances has never been more significant.
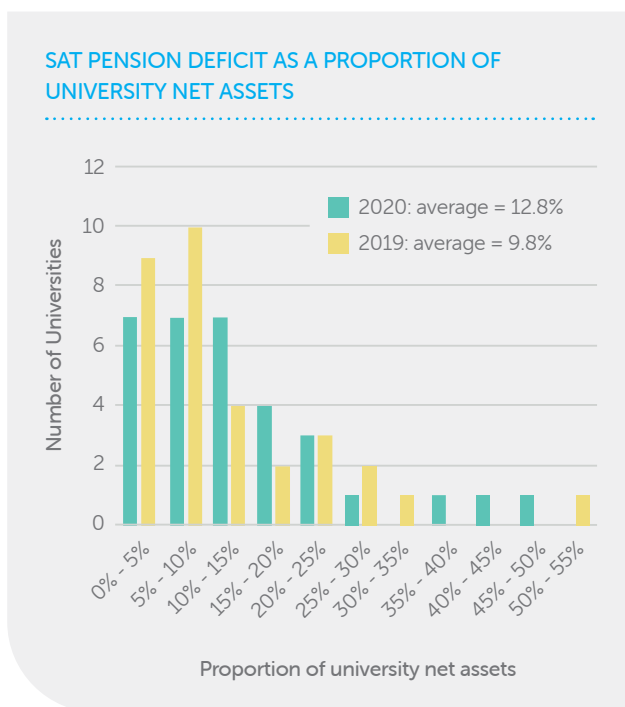
PAUL HAMILTON
Partner and Head of Higher Education sector services

How much of a burden are these schemes?

For the universities in our survey, the pension deficit represents an average of 12.8% of the net assets of the university (excluding the SAT pension deficit). This is once again higher than the average seen last year (9.8%, which was itself an increase since 2018) and reflects the fact that deficits rose sharply over the course of last year as a result of the fall in both yields and equity markets in response to the coronavirus pandemic. Yields reached a low point around the end of July, meaning that this was among the least favourable points at which to measure the deficits. By the end of the year, yields had fallen still further but they have recovered slightly since then and equity markets have made up much of the lost ground.

The chart below shows how this proportion can vary significantly between individual universities.

Contributions to the USS remain substantially higher than the contributions made to SATs.

To an extent this represents the continued maturing of the SATs, an increasingly high proportion of which are closed to new members or to benefit accrual and so represent a decreasing proportion of university staff. Total staff costs have typically fallen in monetary terms between 2019 and 2020 as, where defined benefit schemes are closed, new staff will generally be joining lower-cost defined contribution schemes.

The chart below illustrates how the contributions to SATs compare with contributions made to the USS for these universities.

SAT PENSION DEFICIT AS A PROPORTION OF UNIVERSITY NET ASSETS

- 2020: average = 12.8%
- 2019: average = 9.8%

Number of Universities (y-axis)

Proportion of university net assets (x-axis)

SAT AND USS EMPLOYER CONTRIBUTIONS AS A PROPORTION OF TOTAL STAFF COSTS

- SAT 2020: average = 2.9%
- USS 2020: average = 15.5%

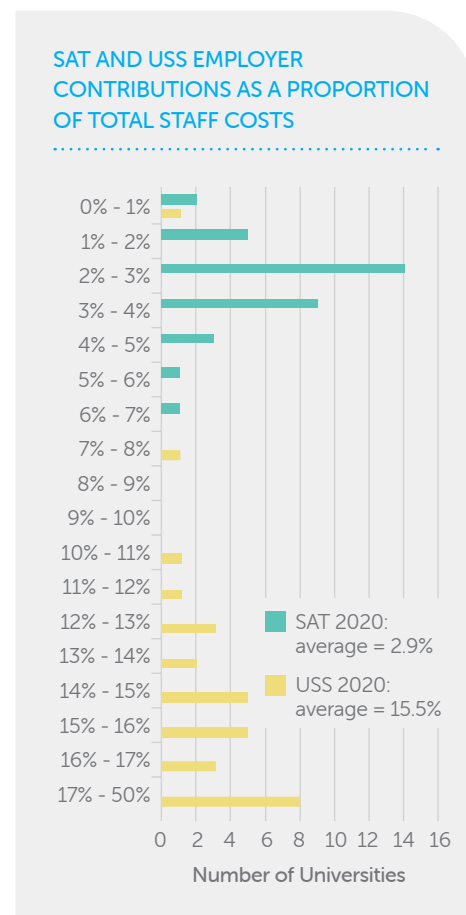Number of Universities (x-axis)

For the universities in our survey that contribute to both SATs and the USS, we found the total contributions made by the universities to SATs as a proportion of total staff costs in 2020 has risen from an average of 2.2% in 2019, to an average of 2.9% as at 2020.

The contributions made to USS, as a proportion of total staff costs, have increased in 2020 at 15.5%, whereas in 2018 the average was 10.1%, reflecting the outcome of the 2018 valuation.

Surplus / deficit

The average FRS102 funding level at 31 July 2020 for the universities in our survey was approximately 75%, which is less than the average funding level of 81% at 31 July 2019. The principal reason for the fall in funding levels over this period was the significant fall in bond yields which led to lower average discount rates used to value liabilities, combined with falls in the value of several asset classes. This was offset to some extent by lower levels of expected future price inflation, and counteracted to some extent by deficit contributions paid by the universities.
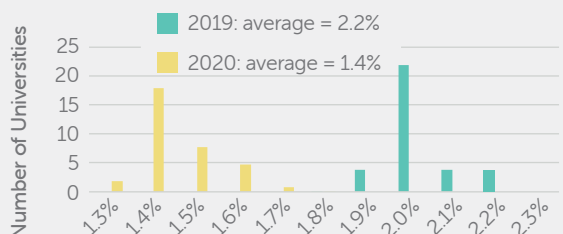
FRS102 FUNDING LEVEL AS AT 31 JULY 2020
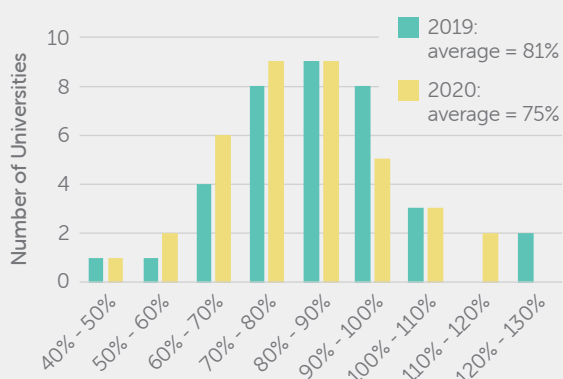
FRS102 assumptions

Discount rate

The discount rates used by the universities in our survey for their SATs are illustrated below.

### DISCOUNT RATE (% P.A.) ROUNDED TO THE NEAREST 0.1%

This reflects the significant fall in corporate bond yields, on which the discount rates are based, over the year.

The following table compares the corporate bond yield and the average discount rate adopted at 31 July over the last five years.

Year ending	iBoxx over 15 year AA-rated corporate bond index (% p.a.)	Average discount rate (% p.a.)
31 July 2016	2.3	2.4
31 July 2017	2.5	2.6
31 July 2018	2.7	2.7
31 July 2019	2.1	2.2
31 July 2020	1.4	1.4

The discount rates adopted have been marginally higher than the yield on the index shown over the past five years. In recent years the derivation of discount rates has tended to place specific reference on the term of the liabilities, e.g. through adopting the yield on a corporate bond yield curve at the relevant term, rather than making an approximate adjustment to an index value. There has also been a move to derive the discount rate using a full yield curve approach, i.e. finding the single discount rate equivalent to discounting each future cashflow using the yield curve at the relevant term. While there are outliers in the data set, in general discount rates have been close to the index yield.

CORPORATE BOND AND GILT YIELD CURVES AS AT 31 JULY 2020
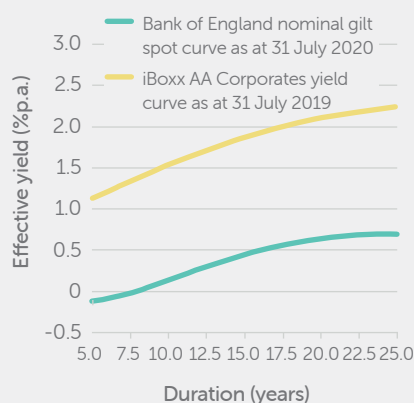
Retail Prices Index inflation

Market yields are generally used to set the future inflation assumption. The market's expectation of the Retail Prices Index (RPI) inflation rate calculated by the Bank of England at 20 years (based on the difference between fixed interest gilt yields and index linked gilt yields) was 3.3% p.a. as at 31 July 2020. Most universities in the survey assumed inflation would be considerably lower, with the average at 2.8% p.a. It is likely some allowance is being made for an "inflation risk premium", which is based on a view that investors will pay more for index linked gilts because they provide inflation protection. This means the break-even rate calculated by the Bank of England is higher than the market's best estimate assumption for future RPI inflation.

Year ending	Market implied future inflation rate* % p.a.	Average inflation assumption % p.a.
31 July 2016	3.5	3.3
31 July 2017	3.6	3.3
31 July 2018	3.5	3.2
31 July 2019	3.6	3.3
31 July 2020	3.3	2.8

* Bank of England implied 'inflation rate' at 20 years.

The assumptions adopted are about 0.5% lower than they were last year, which reflects the fall in market-implied inflation over the year.

Market expectations for RPI are likely to have been influenced by the widely expected announcement that the way in which RPI is calculated from 2030 will change, moving instead to match the 'CPIH' formula.

RPI INFLATION ASSUMPTION (% P.A.) ROUNDED TO THE NEAREST 0.1%
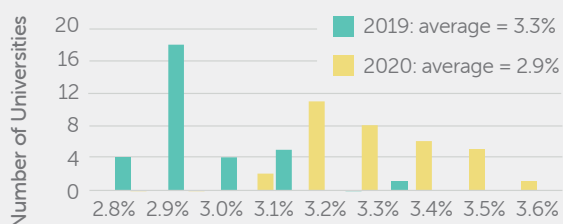
32 out of 35 universities disclosed the RPI inflation rate assumptions (33 out of 37 in 2019)

We have continued to see that the 'single equivalent' approach to setting the discount rate is also being applied to the RPI inflation assumption.

Consumer Prices Index inflation

34 out of the 35 universities in our survey explicitly disclosed a Consumer Price Index ("CPI") inflation rate assumption, implying most of the universities in our survey use CPI as a measure of future inflation for at least some of the increases applied to benefits.

Over the 20 years to 2010, CPI was on average around 0.7% p.a. lower than RPI. Of this, 0.5% p.a. could be attributed to the "formula effect" resulting from technical differences in the way the two indices are calculated, and the remaining 0.2% p.a. could be attributed to differences between the compositions of the two indices. In 2010, a change was made to the way the indices were calculated and at the time this was expected to increase the difference between CPI and RPI going forward. The "formula effect" since 2010 has been observed to be between 0.8% p.a. and 1.1% p.a.

In March 2015, the Office for Budget Responsibility (OBR) published a paper which included an analysis on the gap between RPI and CPI which suggested the other factors mean the gap could be around 1.0% p.a. Additionally, the Bank of England's latest estimate, from its 2014 quarter 1 inflation report, is that the gap will be around 1.3% p.a. over the long term. However, these estimates assume the constituent effect will continue unchanged, and there is no guarantee this will be the case over the long term. Indeed, the omission of housing costs from the calculation of CPI continues to provoke debate. The current Government CPI inflation target is 2.0% p.a.

The following graph shows the gap implied by the assumptions chosen by the 30 universities who disclosed assumptions for both CPI and RPI. The average deduction from RPI was 0.8% p.a. in 2020 which is slightly lower than the 2019 difference (1.0%) and may reflect the anticipated changes to RPI from 2030.

**RPI AND CPI DIFFERENCE (% P.A.) ROUNDED TO THE NEAREST 0.1%**
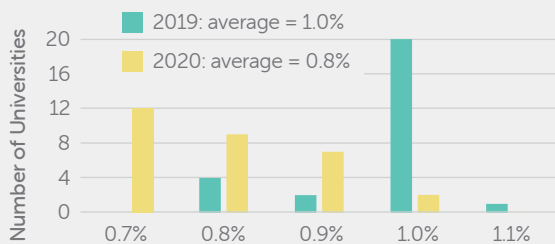
30 out of 35 universities disclosed both CPI and RPI inflation rate assumptions (31 in 2019)

Salary increases

Some universities may use a scale for promotional salary increases in addition to a general salary growth assumption and therefore a comparison of the disclosed salary increase rate assumptions may not be like-for-like in all cases. We have nevertheless shown below the disclosed salary increase assumptions used relative to the CPI inflation assumption i.e. real salary growth. This is a change in our analysis compared to previous years, where salary growth had been compared to RPI.

The average real salary growth assumption has fallen slightly in 2020 compared to the previous year. The chart below only considers universities which disclosed an assumption for CPI.

REAL SALARY GROWTH (% P.A.) ROUNDED TO THE NEAREST 0.1%
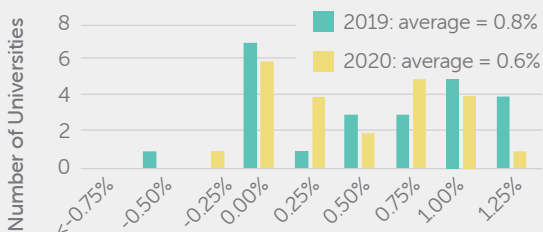
27 out of 35 universities disclosed both the salary growth and CPI inflation rate assumptions (30 in 2019)
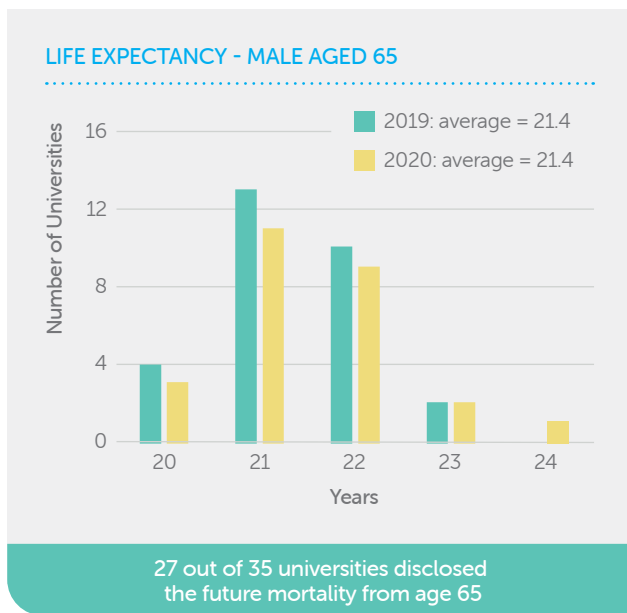
Life expectancy

32 out of 35 universities in this year's survey disclosed information on their life expectancy assumption, either by stating the assumed life expectancy or by referring to the mortality tables used allowing comparisons to be drawn.

We have shown below the life expectancy assumptions for a man currently aged 65 at the year end and also indicated the life expectancies implied by some of the mortality tables that were used.

The wide range of life expectancy assumptions adopted by pension schemes generally can often be explained by differences in the underlying scheme membership, for example different average income levels or occupations. As the profile of SATs members would be expected to be fairly similar from university to university, the wide range highlighted below is perhaps surprising, but may reflect that some universities carried out a more detailed scheme specific mortality investigation.

On average, the mortality assumptions chosen led to very similar life expectancies as at 31 July 2020 when compared to last year, although a minority of universities adopted new assumptions that resulted in a higher life expectancy. It's common practice to review mortality assumption at each triennial valuation, but this would typically only affect around one in three schemes in any given year, so as usual we see a number of universities taking the opportunity to update their life expectancy outside of the usual 3-yearly cycle.
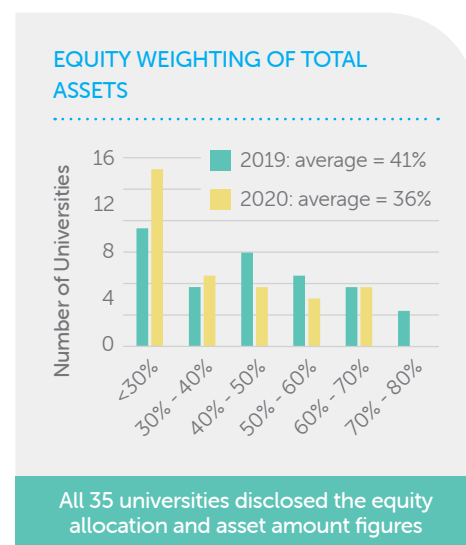
In a small number of cases, the assumptions adopted resulted in lower life expectancies. This may reflect the fact that the most recent large scale analyses of mortality experience have shown the rate of improvement in life expectancies has fallen. In other words, while life expectancies are continuing to increase, they are doing so at a slower rate. Taking account of this new analysis could lead to lower projected life expectancies, reducing the pension costs/deficits.

LIFE EXPECTANCY - MALE AGED 65

2019: average = 21.4
2020: average = 21.4

Number of Universities / Years

27 out of 35 universities disclosed the future mortality from age 65

Asset allocation

The chart below shows the percentage of SATs' assets invested in equities as at 31 July 2019 and 31 July 2020.

The average equity weighting of 36% is once again lower than the 2019 average of 41%, reflecting both the maturing the schemes and perhaps a willingness to consider more varied asset classes such as LDI.

EQUITY WEIGHTING OF TOTAL ASSETS

2019: average = 41%
2020: average = 36%

Number of Universities / <30%, 30% - 40%, 40% - 50%, 50% - 60%, 60% - 70%, 70% - 80%

All 35 universities disclosed the equity allocation and asset amount figures

Current affairs

GMP equalisation

Accounting disclosures as at 31 July 2019 reflected the High Court decision in the case of the Lloyds Banking Group Pension Trustees Limited, with most accounts including an allowance for the expected increase in liabilities arising from it. Because of the nature of the SATs, their benefit structures and the workforces they cater for, this generally added less than 1% to the liabilities disclosed.

In a small number of cases this adjustment was made as at 31 July 2020, but work will be continuing to address the benefits. A further court decision in November 2020 means that further action will be needed to address GMP equalisation in cash equivalent transfer values, which may result in further accounting costs coming through next year.

RPI consultation

In early 2020, the Government proposed changing the RPI inflation statistics to bring RPI in line with the CPIH index. Currently there are three main measures of consumer price inflation in the UK: the Retail Price Index (RPI), the Consumer Price Index (CPI) and CPIH. CPIH became the UK's primary inflation measure in 2017 and essentially takes CPI and adds a measure of owner occupied housing.

Changes to RPI prior to 2030 require the Chancellor's consent, and so early in 2020 the Government consulted on whether it should allow the change to occur before 2030.

On 25 November 2020, the Chancellor responded to the consultation, confirming that he will not provide consent prior to 2030, meaning that the alignment to CPIH will take effect from 2030.

The Bank of England has suggested that increases in CPIH would likely be around 1% p.a. lower than RPI. Pension benefits that are increased in line with RPI are therefore expected to be lower from 2030. The change in RPI is also expected to reduce the payments due from RPI-linked investments from 2030, such as index-linked gilts (ILGs) or Liability Driven Investment (LDI) and gilt yields are likely to rise.

This is likely to have had an impact on inflation assumptions this year, and we would expect assumptions for RPI inflation to trend towards those for CPI in the coming years.

Please contact your Barnett Waddingham consultant if you would like to discuss any of the above topics in more detail. Alternatively get in touch via the following:

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