



Survey of universities' disclosures

Accounting for pension costs

We are pleased to present the results of our twelfth survey of the assumptions adopted by UK universities for determining the value of their pension liabilities for accounting purposes.



The results of this survey show that the size of pension deficits reduced substantially over the year to 31 July 2022, mainly as a result of very large increases in bond yields which drove up discount rates. At the measurement date, asset values were generally still relatively high, albeit lower than a year ago, as most of the market shocks seen in 2022 were still to come. Subsequent funding levels will depend very much on the way in which individual schemes had invested, but in general at the end of July 2022 schemes were seeing a much-improved picture.

While Self-Administered Trusts (SATs) remain the focus of this survey, in the wider sector it is the ongoing discussions around the Universities Superannuation Scheme (USS) - in terms of its valuations and benefit design - that is often the area of greatest focus, although those universities with exposure to the Teachers' Pension Scheme (TPS) and Local Government schemes will also have been paying close attention to the imminent results of new valuations.

This survey is based on data in the published accounts of universities with financial years that ended on 31 July 2022. The figures in this survey are based on a sample of 38 universities whose accounts showed they operate SATs. We have included the figures for 2020 and 2021 to compare with the 2022 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. Since 31 July 2022, short term inflation levels have

remained persistently high and gilt yields have seen even further dramatic rises. Whilst yields have since fallen from their peak around September 2022, they have remained notably higher than the preceding year.

These increased levels of uncertainty around financial markets and within the sector as a whole, shows no signs of disappearing in the short-term, meaning the impact of pensions on university finances has never been more significant.



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How much of a burden are these schemes?

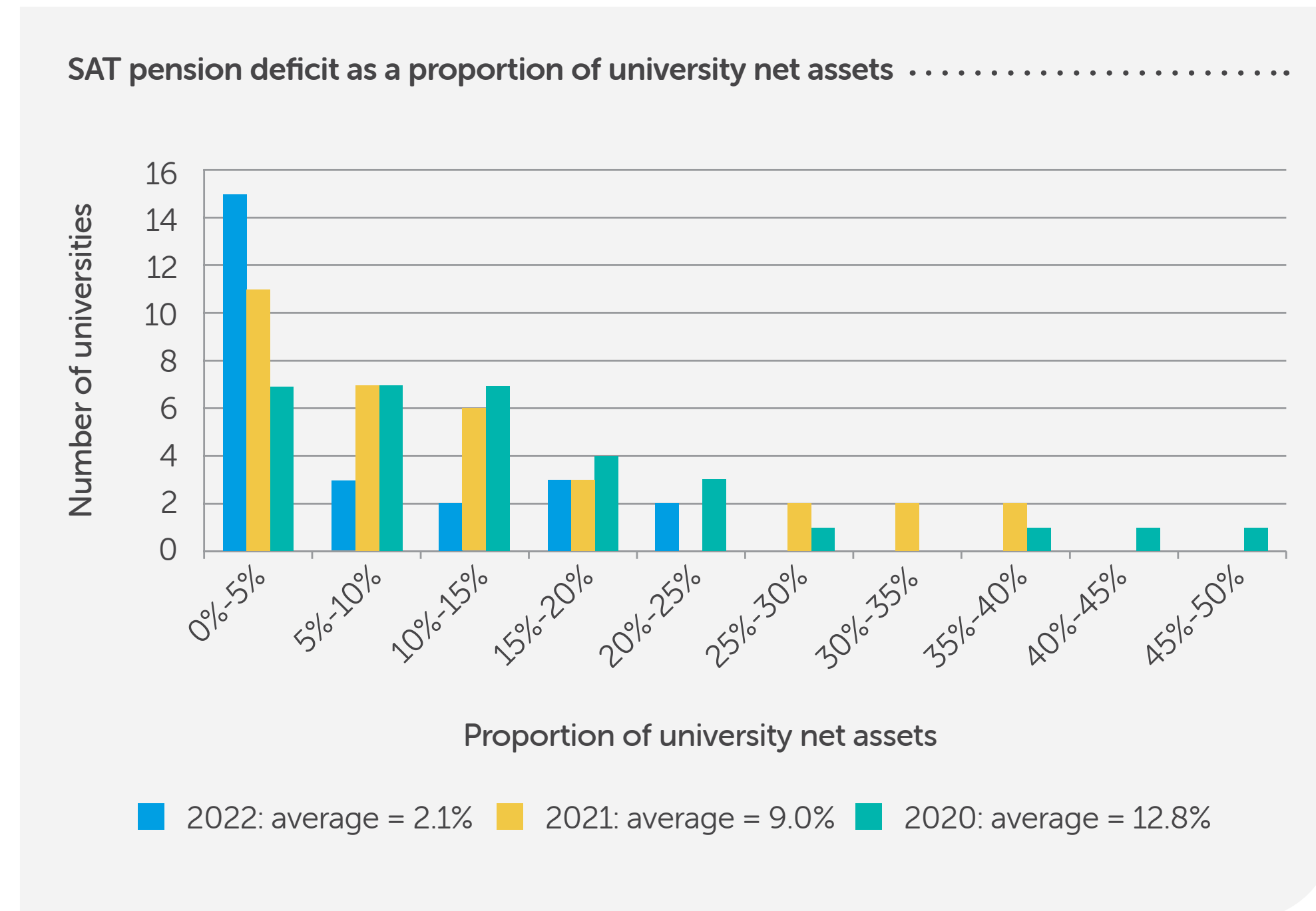
For the universities in our survey, the pension deficit represents an average of 2.1% of the net assets of the university (excluding the SAT pension deficit). This is a reduction from than the average seen last year (9.0%) and the year before (12.8%), and reflects the fact that there has been a partial recovery in markets following the coronavirus pandemic, over the year to 31 July 2022.

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

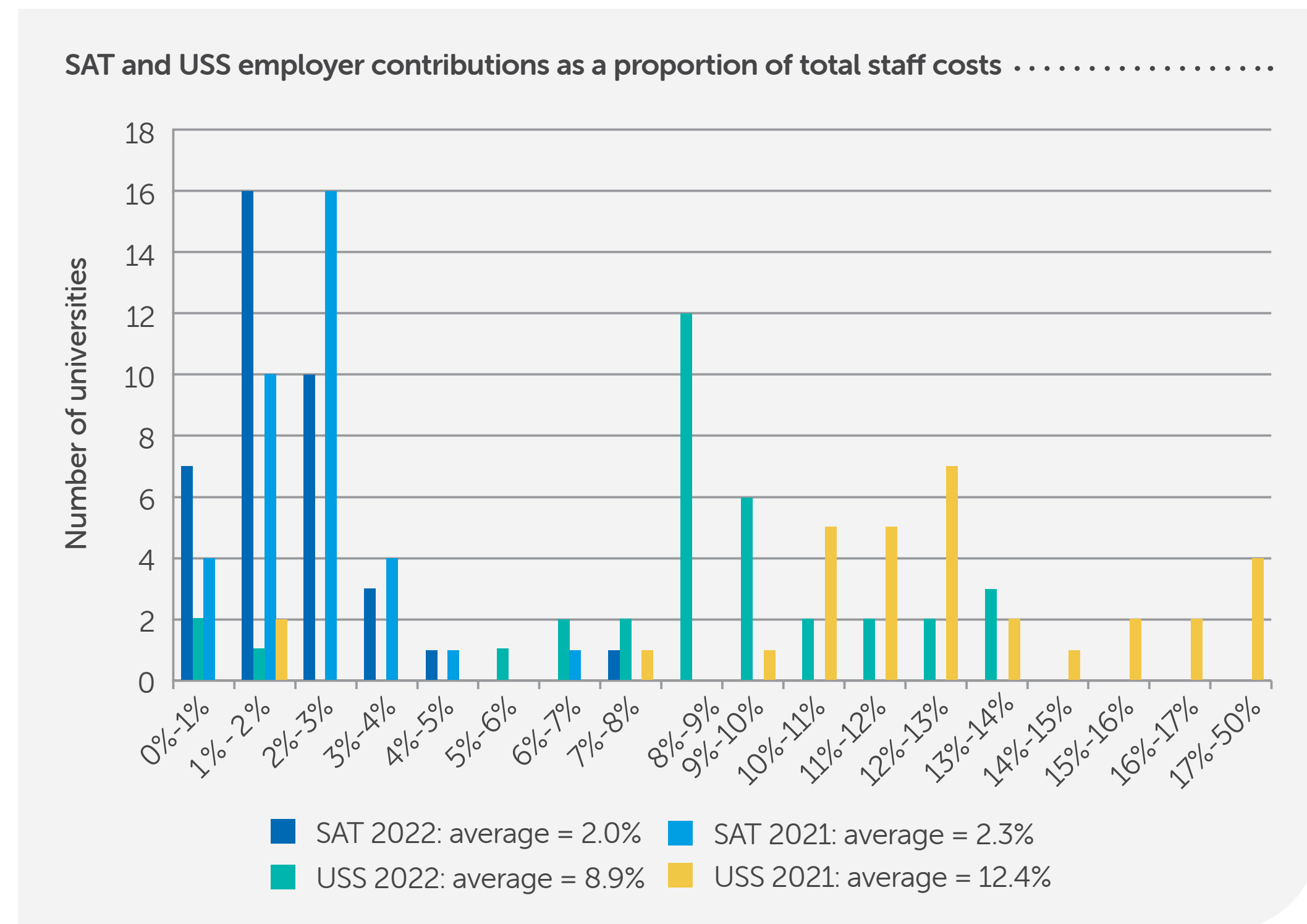
For the universities in our survey that contribute to both SATs and the USS, we found that the total contributions made by the universities to SATs as a proportion of total staff costs has fallen from an average of 2.3% in 2021, to an average of 2.0% in 2022.

Total staff costs have typically risen in monetary terms between 2021 and 2022, perhaps reflecting the impact of the pandemic on working practices and support.

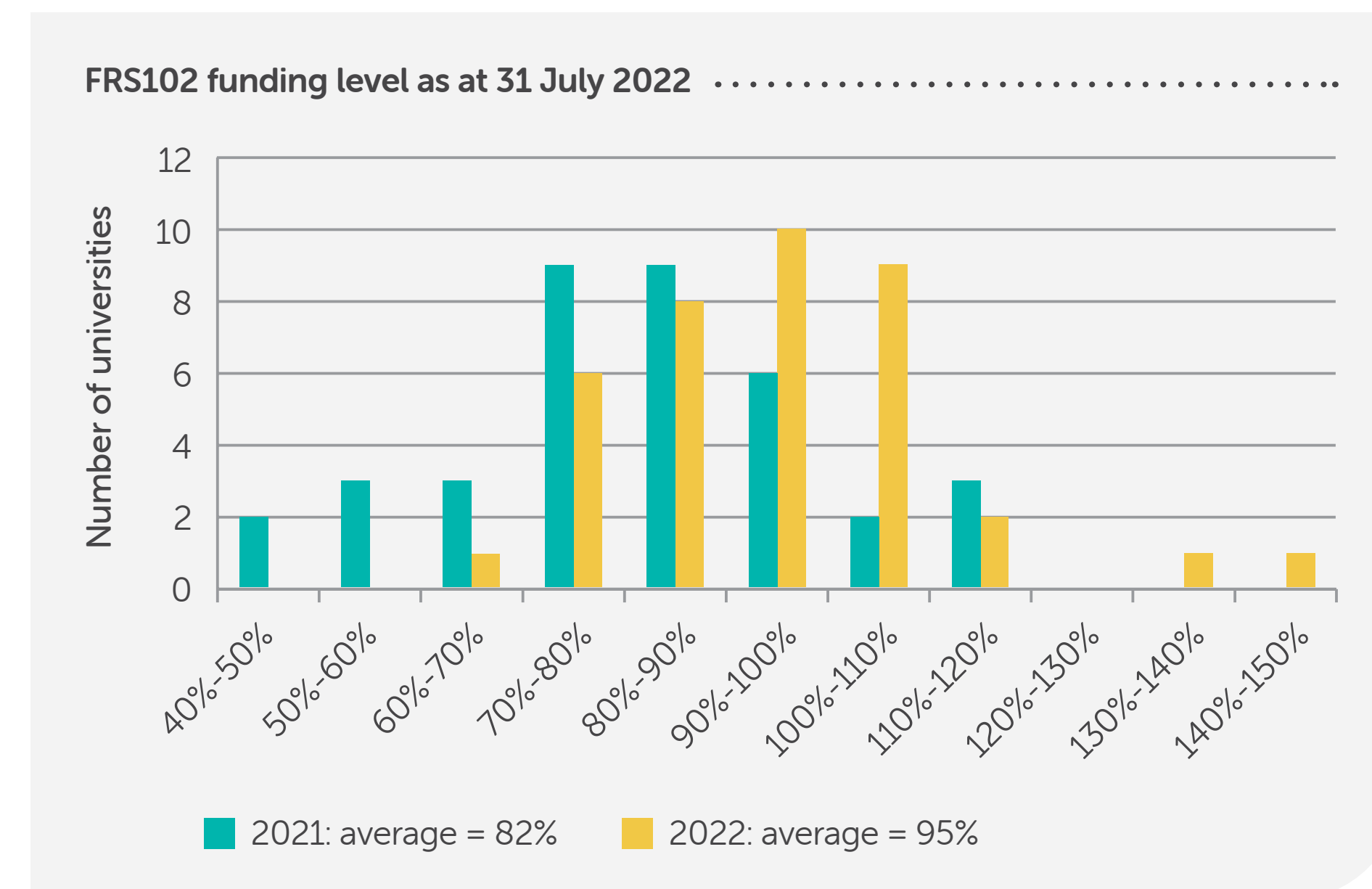
The contributions made to USS, as a proportion of total staff costs, have therefore decreased in the year to 31 July 2022 to 8.9%, compared to 12.4% in the previous year. Contributions to the USS remain substantially higher than the contributions made to SATs.



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



average funding level of 82% at 31 July 2021. Yields have risen over this period, meaning the present value of their liabilities have fallen, whilst the long-term inflation assumption has remained similar. This was only partially offset by actual asset returns being lower than expected over the period. In addition, funding levels will have improved due to deficit contributions paid by the universities.



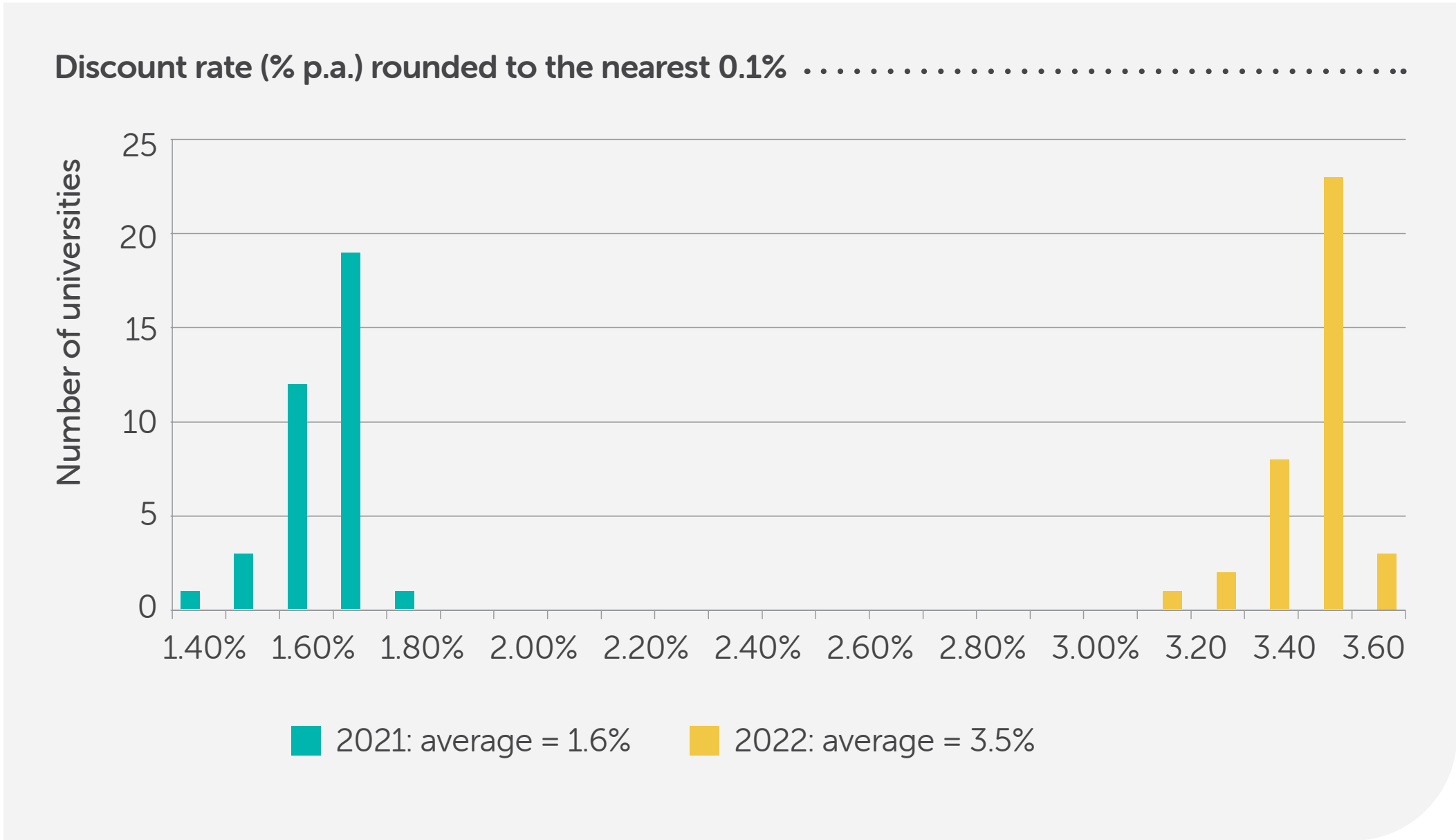
Surplus / deficit

The average FRS102 funding level at 31 July 2022 for the universities in our survey was approximately 95%, which is notably higher than the

FRS102 assumptions

Discount rate

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



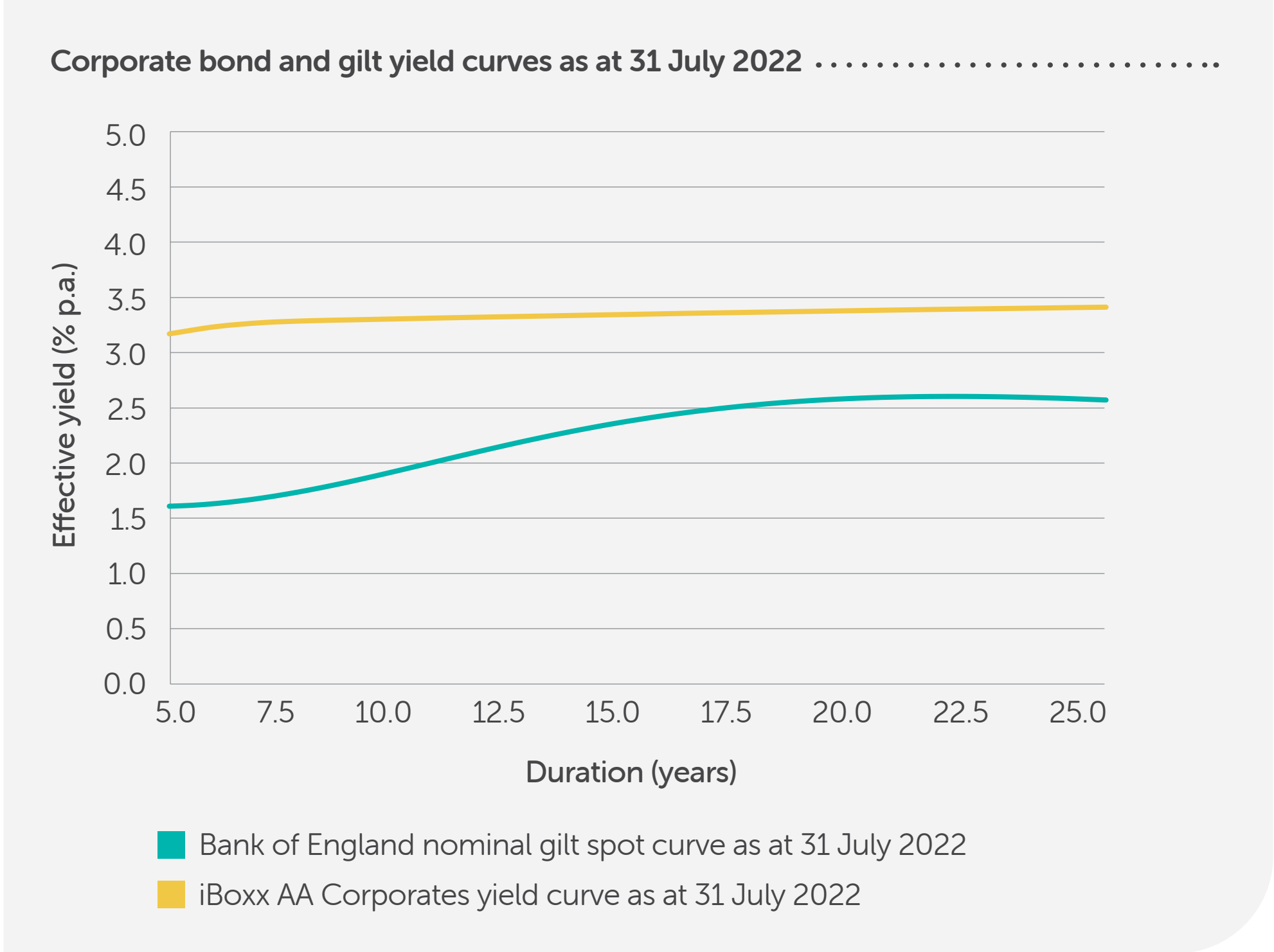
This reflects the large rise in corporate bond yields, on which the discount rates are based, over the year.

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 2018	2.7	2.7
31 July 2019	2.1	2.2
31 July 2020	1.4	1.4
31 July 2021	1.6	1.6
31 July 2022	3.5	3.5

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 remain some outliers in the data set, in general discount rates have been close to the index yield.



Source: Bank of England and iBoxx
 37 out of 38 universities disclosed the discount rate assumptions in 2022

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 3.7% p.a. as at 31 July 2022. Most universities in the survey assumed that inflation would be considerably lower, with the average at 3.2% p.a. It is likely that 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 that 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 2018	3.5	3.2
31 July 2019	3.6	3.3
31 July 2020	3.3	2.9
31 July 2021	3.6	3.2
31 July 2022	3.7	3.2

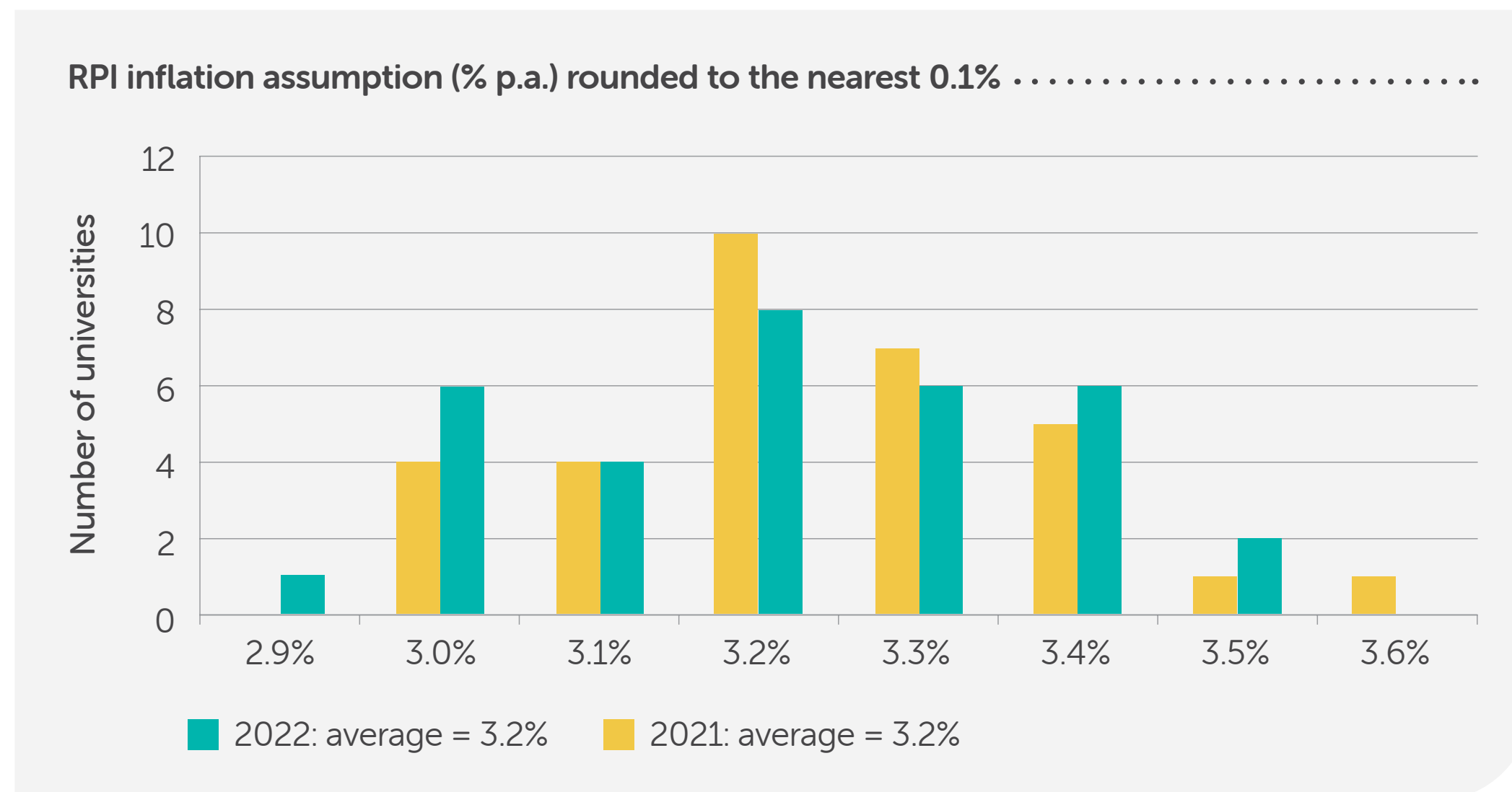
* Bank of England implied 'inflation rate' at 20 years.

The assumptions adopted are about the same as they were last year, which reflects the consistency in market-implied inflation over the year. This may be unexpected given the notably high levels of inflation the UK has been experiencing throughout 2022, however it must be emphasised that the inflation assumption reflects the long-term market expectations for inflation.

Market expectations for RPI are likely to have been influenced by the announcement that the way in which RPI is calculated from 2030 will change, moving instead to match the CPIH (Consumer Prices Index including Housing costs) formula.

A further factor that may be influencing the choice of inflation assumption is the reduction in duration that will have been caused by both the increase in bond yields and the gradual aging of these pension schemes, many of which are now closed to either new entrants or accrual (and consequently will be seeing the average age of their membership increasing over time). However, as at 31 July 2022, market-implied RPI at a duration of 15 years was similar to the 20-year duration.

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



33 out of 38 universities disclosed the RPI inflation rate assumptions in 2022

Consumer Prices Index inflation

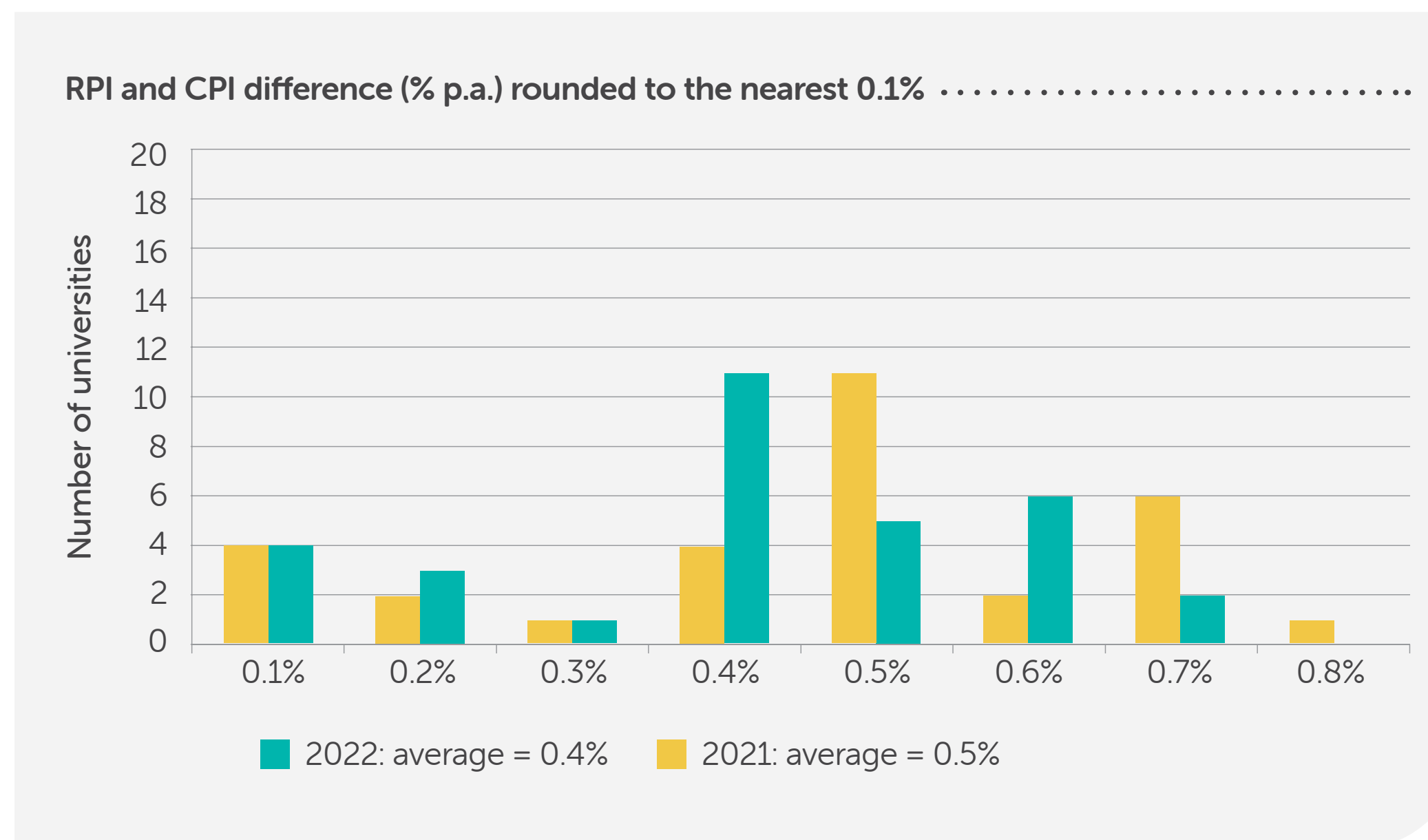
37 out of the 38 universities in our survey explicitly disclosed a Consumer Price Index (“CPI”) inflation rate assumption, implying that most of the universities in our survey use CPI as a measure of future inflation for at least some of the increases applied to benefits.

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 that the other factors mean the gap could be around 1.0% p.a. Additionally, the Bank of England’s latest estimate, from its 2014 Q1 inflation report, is that the gap will be around 1.3% p.a. over the long term. However, these estimates assume that the constituent effect will continue unchanged, and there is no guarantee that this will be the case over the long term.

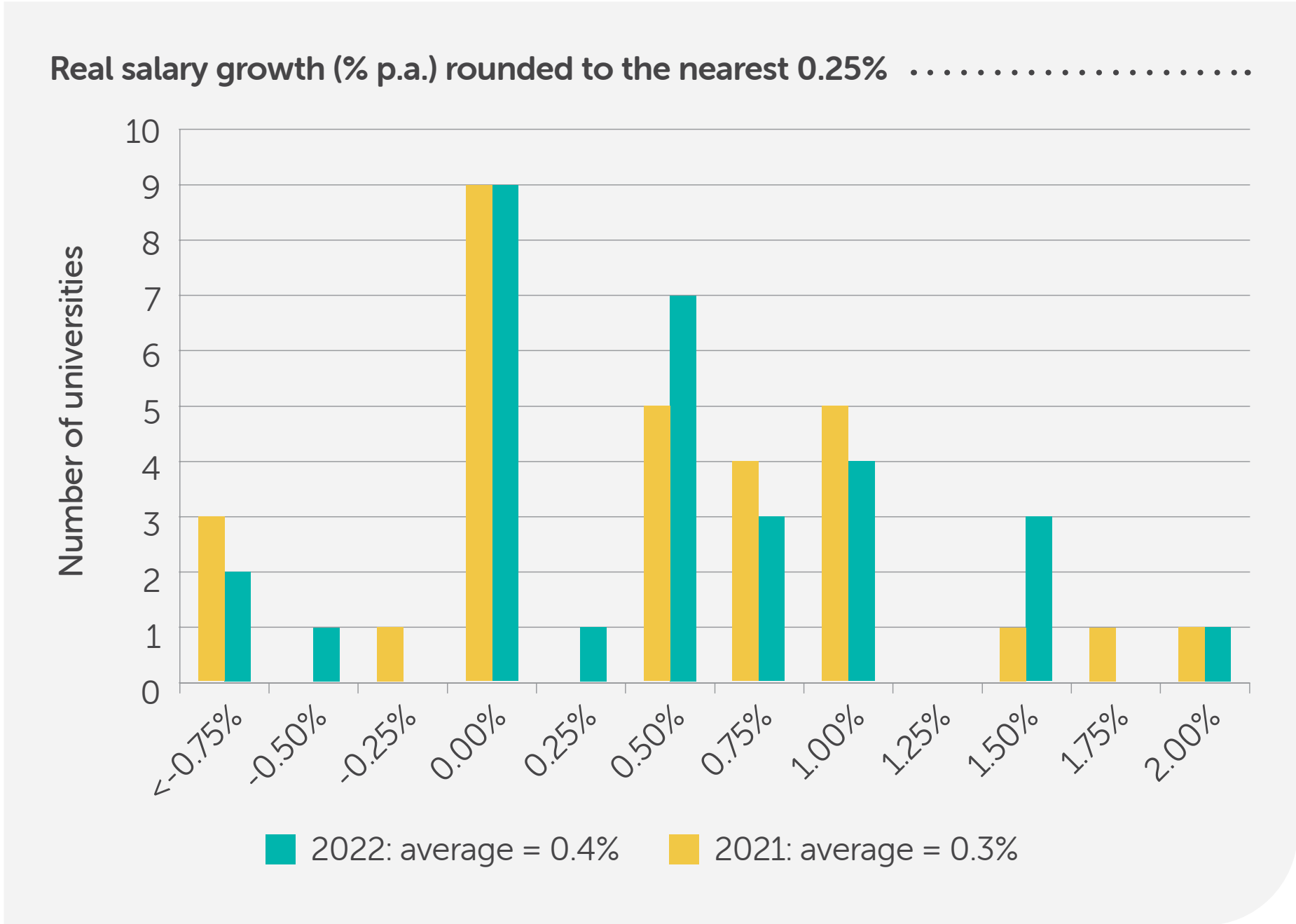
Indeed, the omission of housing costs from the calculation of CPI continues to provoke debate. The current Government CPI inflation target is 2.0% p.a.

The following graph shows the gap implied by the assumptions chosen by the 32 universities who disclosed assumptions for both CPI and RPI. The average deduction from RPI was 0.4% p.a. in 2022, which is lower than the 2021 difference (0.5%) and likely reflects the anticipated changes to RPI from 2030 being factored into assumptions as at 31 July 2022.



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.



31 out of 38 universities disclosed both the salary growth and CPI inflation rate assumptions in 2022

The average real salary growth assumption has risen in 2022 compared to the previous year which could be as a result of the economic recovery from the impact of the coronavirus pandemic. The chart below only considers universities which disclosed an assumption for CPI.

Life expectancy

37 out of 38 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. However, as the profile of SATs members would be expected to be fairly similar from

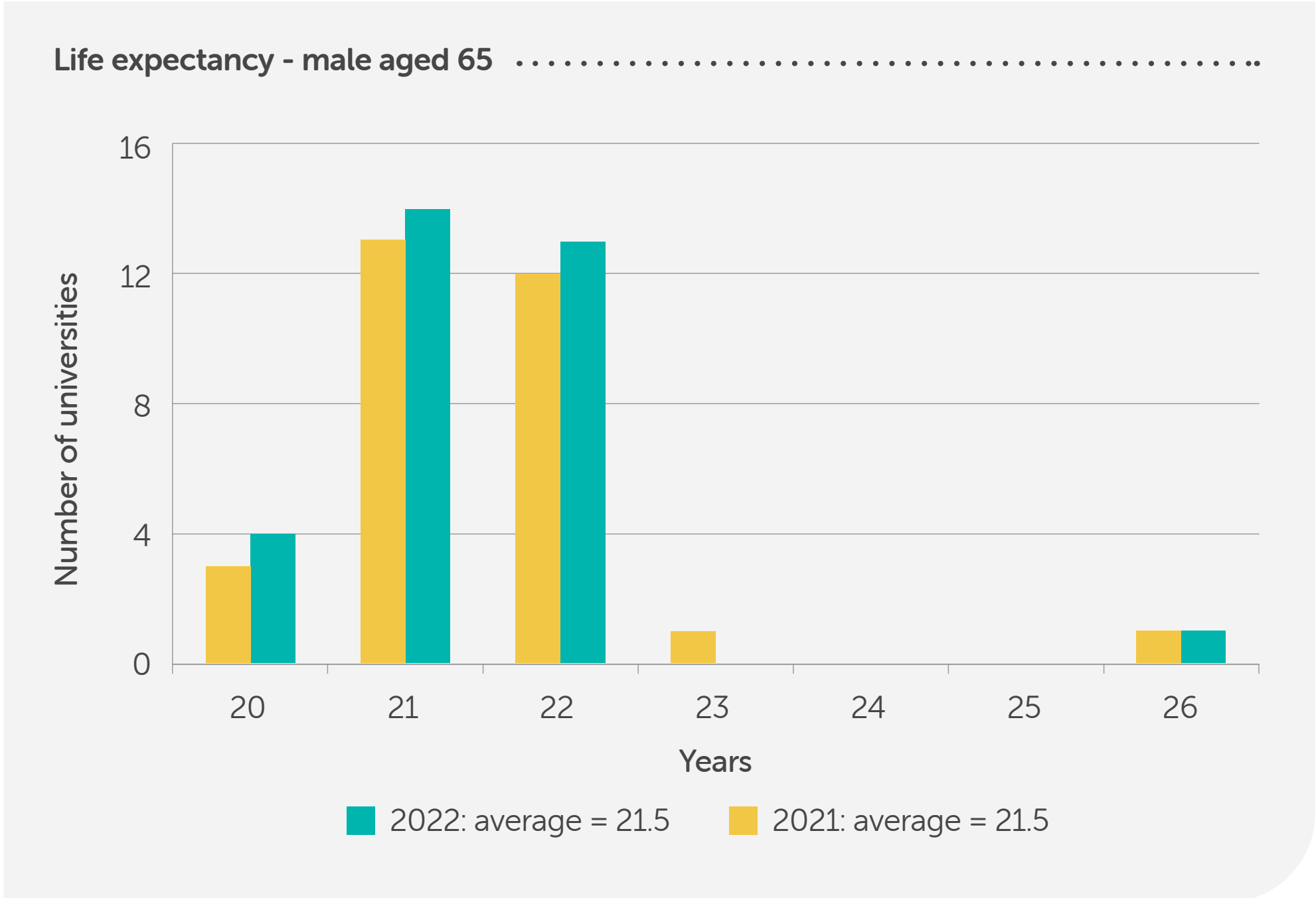
university to university, the wide range highlighted below is perhaps surprising, but may reflect that some universities carried out a more detailed scheme specific mortality investigation.

On average, the mortality assumptions chosen led to very similar life expectancies as at 31 July 2022 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 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 that 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.

In addition, pension schemes do now have the option to take some of the exceptionally high death experience in 2020 (as a result of the coronavirus pandemic) into account when projecting mortality rates into the future. This could lead to lower projected life expectancies, reducing the pension costs/deficits.

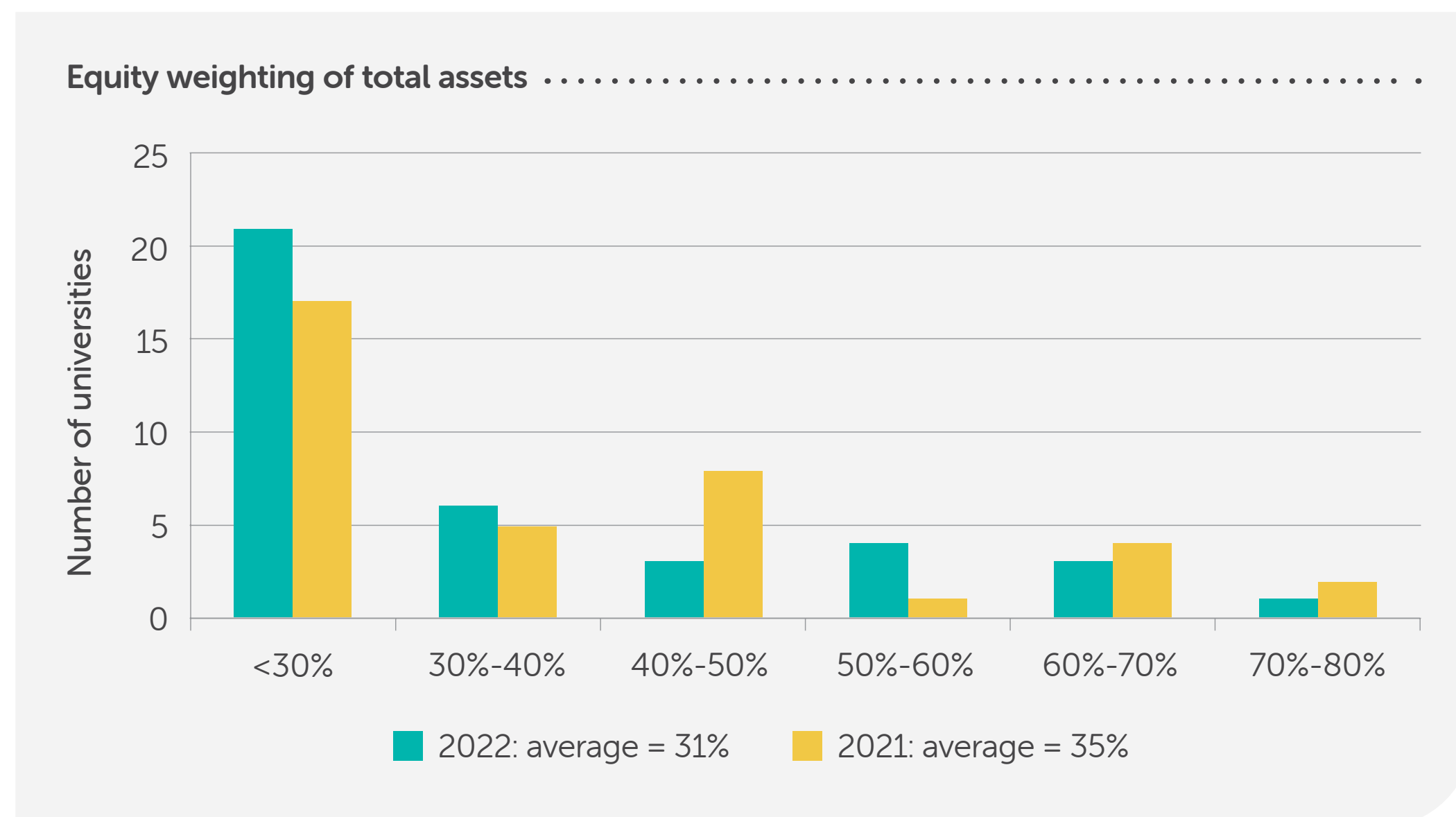


37 out of 38 universities disclosed the future mortality from age 65 in 2022

Asset allocation

The chart below shows the percentage of SATs' assets invested in equities as at 31 July 2021 and 31 July 2022.

The average equity weighting of 31% is lower than the 2021 average of 35%, reflecting both the maturing of schemes and perhaps a willingness to consider more varied asset classes such as LDI and infrastructure in order to reduce the impact volatile markets have on the funding position of the schemes.



All 38 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. A further court decision in November 2020 meant that further action was needed to address GMP equalisation in cash equivalent transfer values, which has led to a (generally minor) past service cost for some of the schemes surveyed this year.

GMP equalisation continues to be a live issue, with many schemes now moving from assessing the potential impacts to making the benefit changes necessary to implement equalised GMP.

Sustainability

An increasing focus for the trustees and sponsors of many pension schemes is the need to consider climate change as part of their long-term investment strategies, as well as the impact it may have on employer covenant and long-term funding. The immediate effects of this on accounting disclosures are likely to be investment-led – divestment vs engagement being just one of the more high-profile considerations – but the impacts are wide-ranging and this may become one of the dominant themes over the coming years.

Ukraine and cost-of-living

At the time of writing, the invasion of Ukraine by Russian forces has been ongoing for a little over a year. Whilst, there are still many unknown long-term effects of the invasion, we have already witnessed increased gas and electricity prices as a direct result of the conflict. This has exacerbated the pressures on the disposable income of families across the UK and further afield, caused by already heightened short-term inflation. This high inflation has persisted. As of January 2023 it appears to peaked at around 10%, but with the Bank of England forecasting inflation to fall to around 4% by the end of 2023, it is likely that the finances of many across the UK will continue to be strained throughout 2023.

These ‘cost of living’ pressures combined with the Russian invasion of Ukraine will undoubtedly continue to cause economic, covenant and funding implications that will influence the results of the accounting calculations as at 31 July 2023, and we would expect all schemes to be actively considering these issues.



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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