

Non-technical Summary

In this paper we examine patterns in annuity prices over the last thirty years and calculate whether annuities are fairly priced. We find that annuity rates for 65 year old males have declined from a high of 18 per cent in the late 'seventies to current rates of around 8 per cent, which might appear to suggest that the current generation are being unfairly treated. However we then ask two questions: are these annuity rates unfairly low, and are annuity rates on their own, an important measure of pensioner's welfare?

To assess whether annuity prices are fair, we calculate the "money's worth" of an annuity, which is the ratio of the expected present value of the flow of promised payments made by an annuity to the money paid for an annuity. In order to calculate this present value, we use estimates of life expectancy from annuitant life tables over the same period, and estimates of the term structure of interest rates. The results are that although the money's worth fluctuates over time over the period 1972-2002 its average value is insignificantly different from unity, and sometimes lies above unity. This is a surprising result, because it suggests that not are annuities fairly priced on average, but also at some times they are more than fairly priced: annuitants are getting better than a fair deal.

In answer to the second question, we examine patterns in the replacement ratio over the last thirty years, where the replacement ratio is defined as the ratio of pension income from the annuity to labour income (net of pension contributions). The pension income from an annuity is made up of the annuity rate multiplied by the value of the pension fund at retirement. Using simulated savings rates with reasonable parameter values for an average worker who started saving forty years before retirement in 1932, We find that replacement ratios have actually increased over the last thirty years, mainly because of the tremendous growth in equity markets over the latter half of the 20th century. In conclusion there is no reason to suggest that individuals are worse off by current annuity rates being low, since this has been off-set by increases in the value of pension funds over the last thirty years. Even apart from the fact that people retiring today expect to live longer, their pension income from an annuity (compared to their final salary) looks as good as ever.