The Money's Worth of annuities in the UK between 2006 and 2014

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ABSTRACT

Improvements in life expectancy and the fall in interest rates have had a significant impact on annuity rates but not on their Money's Worth (MW). Following the ban of gender-based price discrimination, MW has decreased for male annuitants and increased for female annuitants. This paper investigates the 'value' of annuities in the United Kingdom (UK) and examines how this has changed from January 2006 to June 2014 'the relevant period'. During the relevant period the MW of a standard annuity bought on the open market was, on average, 94% for a 65-year-old male annuitant with a £50,000 pension pot.

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Introduction

Historically, mainly for legal and regulatory reasons, the market for 'at retirement' products in the UK has been dominated by annuities.[1] In the last few years, and especially since the financial crisis, stakeholders have suggested that the annuities market is not working well and that annuities provide poor value for money to consumers. In 2015, new pension freedoms gave consumers a greater choice about whether to purchase an annuity. Previously, most consumers were obliged to annuitise. Given the pension freedoms, it is important to understand whether annuities provide good value to consumers. In this paper we investigate the 'value' of annuities in the UK, and how this has changed over the last decade.

To determine the value of annuities in the UK, we calculate the Money's Worth (MW) of annuities, which is the present value of the expected payments promised by the firm divided by the amount of money paid by the retiree to the firm. The MW indicates the proportion of the premium paid upfront that the average retiree gets back during their life.

If annuity providers are expected to return all annuity premiums to consumers, the MW should be equal to 100%. However, the MW is typically less than 100% as firms have to cover administrative and operational costs and they are remunerated for bearing credit and longevity risks. It is theoretically possible that the MW could be greater than 100%, because life insurers may invest in risky assets that give higher yields, rather than risk-free bonds (which we use to calculate the present value). If these higher yields are partially passed through to consumers it may result in the MW being greater than 100%.

The MW approach has been extensively used to analyse annuities in various countries around the world. In the UK there are a number of studies that estimate the MW of annuities. Finkelstein and Poterba (2002), using data from August 1998, showed that the MW of annuities was 90% for a £10,000 pension pot and 91% for a £50,000 pension pot (for a 65-year-old annuitant). It also showed that the MW declined with age so buying an annuity at a younger age offered better value for money.

A Department of Work and Pensions report documented a reduction in the MW from 95% in 2000 to 85% in 2007 for a 65-year-old male retiree with a £10,000 pension pot (Cannon and Tonks, 2009). First, the report suggested that life insurers were pricing improvement in life expectancies into annuities which were not yet reflected in the mortality tables that were publicly available. Second, it showed that over the considered period, annuities represented good value for money. Finally, it concluded that the MW over the same period did not decline with age (once mortality improvements were taken into account). Buying an annuity became better value as people aged.

A later study Cannon and Tonks (2013) provided more recent estimates of the MW and showed that between May 2004 and April 2012 the MW of level annuities for a 65-year-old male retiree with a £10,000 pension pot was, on average, 86%.

In this report, we expand on these studies by examining the period between January 2006 and June 2014. This allows us to assess the impact of the European Court of Justice (ECJ) ruling that

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[1] An annuity is an insurance contract where a person buys a stream of future payments that are conditional on the person being alive at the time at which the future payments are due.

banned gender-based price discrimination. It also allows us to assess the impact of the lower interest rate and longer life expectancy on annuities rates and MW. Our calculations show that for a 65-year-old male who buys a level standard annuity on the open market with a £50,000 pension pot, the MW is 94% on average. Put simply, he can expect to receive back, on average, 94% of the premium paid (taking into account the expected average longevity of annuitants and the interest annuitants sacrifice on their pension pot by buying an annuity). This high percentage suggests that annuities represent good value for money because consumers get the vast majority of their premium returned to them in income. This amount remained reasonably stable between 2006 and 2014.

Annuities bought using smaller pots have a lower MW. A male annuitant with a £10,000 pension pot expects, on average, an MW of around 87% over the same period. A lower MW could be expected given that the administrative costs of setting up an annuity will be similar regardless of the pot size. While annuities bought in the open market provide reasonably good value for money, annuities bought internally from pension accumulation services providers give a lower MW.

We also analyse separately the impact of interest rates and mortality assumptions on an annuity available in June 2014 for a 65-year-old male annuitant.

The period over which we assess the MW of annuities is characterised by a number of regulatory changes that had a significant impact on the annuities offered by firms. As previously discussed, in 2014 the UK Government announced greater flexibility to retirees. These pension reforms came into effect in 2015.

Additionally, we consider that a number of recent regulatory interventions may have had a significant impact in the market over the relevant period. The FSA's Retail Distribution Review (RDR) changed, among other things, the way advisers charge for advice. The RDR increased transparency, requiring financial advisers to disclose upfront the cost of advice. The RDR has been in place since the start of 2013 (Financial Services Authority (FSA), 2012). We note that the RDR only applies to advised sales, and commission can still be paid on non-advised sales.

At European level, the ECJ ruled that, to guarantee equal treatment between men and women, the use of gender as an actuarial factor must not result in differences in premiums and benefits for insured individuals. Consequently, from December 2012, the annuities rates offered to men and women were equalised. We assess the impact of this ruling in Section "The impact of the European Court of Justice decision on gender-based price discrimination". Finally, new prudential capital requirements for insurers came into effect in January 2016, replacing the previous Individual Capital Adequacy Standards (ICAS) regime.

The ECJ decision to ban differential pricing based on gender in insurance had a visible impact on annuity rates and MW. When the annuities rates offered to men and women were equalised, given the different life expectancies, the MW for male annuitants worsened while the MW for female annuitants improved.

The remainder of the paper is organised as follows. Section "The Money's Worth framework" introduces the MW framework. Section "Data and methodology" discusses the methodology and the data used for annuities rates, interest rates and mortality tables. Section "Results" presents the results and the impact of regulatory and economic environment on annuity rates. Section "Different annuity products and age profile" examines the MW of different annuities products and presents a sensitivity analysis. Finally, Section "Conclusions" concludes.

The Money's Worth framework

The MW framework brings together the different elements that make up the value of an annuity: future mortality projections, annuity rates and discount rates for future payments. In practice it entails calculating the ratio between the expected present value of future payments and the value of the initial payment (ie the annuity premium). It is a measure of what share of the premiums collected are repaid to those customers that make a claim on the insurance policy.

The MW of a level annuity (ie an annuity that provides a fixed regular payment until the annuitant dies) can be calculated as follows.

$$Money's\ Worth_{level} = A_t^{level} \sum_{i=1}^{T} \frac{\pi_{t,t+i}}{\left(1 + R_{t,i}^{Nom}\right)^i}$$

where t is the time of purchase, A_t^{level} is the annuity rate.[2] At the time t, $\pi_{t,t+i}$ is the probability that a retiree will live i more periods. $R_{t,i}^{Nom}$ is the nominal discount rate applying between time t and $t+i$, and T is chosen so that there is a negligible probability that the retiree will be alive at time T.

There are a number of different annuity contracts. Escalating annuities pay an amount that increases each year in line with a predetermined formula (eg the rate of the Retail Price Index (RPI) or a fixed percentage). Guaranteed annuities guarantee the payments for a pre-agreed number of years (usually five or ten). If the annuitant dies before the guaranteed period ends, the payments go to their estate. The MW of these annuities can be calculated as follows.

$$Money's\ Worth_{RPI\text{-}linked} = A_t^{RPI} \sum_{i=1}^{T} \frac{\pi_{t,t+i}}{\left(1 + R_{t,i}^{Real}\right)^i}$$

$$Money's\ Worth_{5\%escalating} = A_t^{escalating} \sum_{i=1}^{T} 1.05^{i-1} \frac{\pi_{t,t+i}}{\left(1 + R_{t,i}^{Nom}\right)^i}$$

$$Money's\ Worth_{guaranteed} = A_t^{g'teed} \left(\sum_{i=1}^{G} \frac{1}{\left(1 + R_{t,i}^{Nom}\right)^i} + \sum_{i=G+1}^{T} \frac{\pi_{t,t+i}}{\left(1 + R_{t,i}^{Nom}\right)^i} \right)$$

where $R_{t,i}^{Real}$ is the real discount rate applying between time t and $t+i$,[3] G represents the guaranteed period (eg five or ten years) during which the probability to receive the payment is equal to one. Annuity rates differ for annuitants of different ages[4], so the probability of surviving i periods can also vary.

This paper does not deal with enhanced annuities. Enhanced annuities are annuities contracts offered to retirees with health problems. Enhanced annuities have become increasingly popular in recent years, and its market increased from £1.5bn in 2008 to £4.5bn in 2012.[5] We do not focus on enhanced annuities because we could not obtain information on mortality that is specific for annuitants in ill health. Additionally, it is very difficult to obtain quotes that are truly comparable.[6]

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[2] The annuity rate is simply the annual income received from the annuity divided by the premium. So if a retiree were to receive £1000 per year for every £10,000 she would pay the annuity provider the annuity rate would be 10%.

[3] At any point in time t we use the whole yield spot curve.

[4] Until December 2012 rates would have been different for male and female annuitants, but this is now not allowed in the EU.

[5] Data taken from ABI website: www.abi.org.uk

[6] Section "Mortality assumptions" includes a discussion of the impact of the growth of the enhanced annuities market on mortality rates.