Annuities: a complex market for consumers

A report by Christopher O'Brien[1]

Senior Fellow, Nottingham University Business School

Member, Centre for Risk, Banking and Financial Services

November 2013

Contact details: telephone 0115 846 6519; e-mail christopher.obrien@nottingham.ac.uk

Summary

This research uses the ABI Annuity window and the Money Advice Service (MAS) website to investigate annuity rates in the UK.

Many annuity providers, especially those active for open market options, now use postcode and health status to determine the annuity rates they offer, though this far from universal. For some providers, an annuity in one postcode may be more than 10% higher than in another postcode. Health conditions can also make a big difference: although the ABI Annuity window provided data on just three examples, one insurer quoted an annuity rate 84% higher in one case for an enhanced compared to a standard annuity. Use of marital status in determining annuity rates is less common.

The variation in annuity rates between providers can be substantial. The survey examined what the MAS website showed as the annuity rates offered by 6 providers in a variety of circumstances, for individuals with different ages, living at different postcodes and where the annuity was guaranteed for different lengths of time; on average, the range from top to bottom annuity rate was 14.7%. Using the ABI Annuity window, with a greater number of providers, the range averaged 22.9%. However, there are some firms clustered at the top with relatively small differences in the annuity rates they quote. In the MAS results, the difference between the top rate and the 3rd highest was 5% or less in 92% of the cases in the survey, and was 2% or less in 42%.

The analysis finds that a provider that is competitive in some cases may not be so in others. Firms' competitiveness does differ depending on the type of annuity (guaranteed term), the retiree's circumstances (age and health status) and postcode. Therefore, knowing that an insurer is competitive in some cases is of limited use as regards its competeveness in another situation. This is a change since a report for the OECD in 2008 and may reflect the way in which the UK annuity market has become more complex as providers have introduced new factors into the way they set annuity rates.

The data used in this report were available in August 2013.

[1] I am grateful to Laurence O'Brien for his assistance in collecting the data for this report and in contributing to the analysis; and to Stephen Diacon and Dev Vencappa for helpful comments on the report.

Messages for consumers

Four messages for consumers stand out.

First, do not assume that if your pension provider does not market annuities externally, you will get a poor annuity rate: the evidence from the survey is that such providers offer rates that are, on average, about the same as providers who are active in the market for external annuities.

Second, the research confirms that when you look to buy an annuity using the open market option, there is a substantial range between the top and bottom annuity rate: it may well exceed 15-20%.

Third, if your circumstances could lead to an increased annuity (as a result of postcode, smoking or ill-health or single status), check whether your proposed annuity provider credits you with more annuity income as a result: although that doesn't necessarily produce the best deal overall.

Fourth, do check on the competition for your own circumstances and annuity type: do not assume that an insurer that is competitive in other situations will be best in yours.

1. Introduction

Individuals who save for their retirement using a pension policy usually need, at retirement, to convert most of the lump sum they have accumulated into an annuity, i.e. a regular payment paid for the rest of their lifetime. They can obtain the annuity either from the insurer with whom they have been accumulating their fund, or from another insurer, to which the fund is transferred, i.e. buying externally using the open market option (OMO). While it is potentially beneficial for individuals to survey the market at retirement, there are concerns that the annuity market does not work efficiently: many consumers do not shop around and those that do may not choose the most competitive insurer.

This is important because the annuity market in the UK is substantial: each year, individuals reaching retirement use about £12bn of accumulated funds to buy annuities (Harrison, 2012). Crouch et al (2013) found that 63% of annuity purchasers claimed to take some action to shop around,[2] although about half of those stayed with their existing provider. Nevertheless, Wells & Gostelow (2010) estimate that 81% of annuitants (91% by value) get the best rate, either from their existing provider or by switching or by the choice of their scheme trustees: the overall customer detriment is thought to be 3% of gross income, though 9% for those who do not shop around. To understand these issues, it is important to understand how providers determine the annuity rates they offer, which is equivalent to how they price their product.

A number of issues have been raised in reports on the annuity market (e.g. Cook et al, 2002; Gunawardena et al, 2008; Oxford Economics, 2009; Wells & Gostelow, 2010; Harrison, 2012; Crouch et al, 2013). For example, it can be difficult for retirees to establish where to go for good advice and they may be reluctant to shop around or switch. It has been suggested that insurers who do not market annuities actively may offer poor value for money; and that pricing practices are not transparent. There are particular problems if the retiree has a small fund, which is unattractive to

[2] Harrison (2012) points out that the term 'shopping around' is not well-defined; and Wells & Gostelow (2010) suggest that ABI data may overstate shopping around.

advisers or OMO providers. Estimates of the loss to an annual cohort of pensioners over the course of their lifetime vary: £280m (Wells & Gostelow, 2010) and £500-1000m (Harrison, 2012).

The Association of British Insurers (ABI, 2012) has recognised the concern that individuals may be forgoing income by not shopping around and has issued a Code of Conduct for its members to facilitate exercise of the open market option. Indeed, some insurers, especially those that do not market open market options, help that process by providing a service that checks other firms' annuity rates, or they may refer customers to an intermediary or another insurer if that offers a better rate.[3]

The pricing of annuities is a topical subject: the Financial Services Authority (2013) announced that it is carrying out a thematic review on annuities, exploring the risk of detriment that consumers may face from not shopping around. The work is being taken forward by the Financial Conduct Authority (2013).

Research aims

The annuity market has developed in recent years, with some insurers now quoting annuity rates that depend not only on age but also on postcode, health and marital status. That complexity raises issues for consumers shopping around for an annuity. This research examines:

- What is the impact on annuity rates as a result of providers using rating factors such as postcode, health status and marital status?
- Do different providers have widely differing annuity rates in the same situation (age, postcode, etc), i.e. what is the dispersion of annuity rates? and
- Is there consistency as regards which firms are the leading players in different situations: e.g. if one firm is competitive in one postcode, is it typically competitive in other postcodes?

This builds on previous research by Rusconi (2008) who prepared a report for the OECD, but takes account of the way that pricing in the annuity market has become more complex in recent years.

Plan

Section 2 explains how insurers determine annuity rates. Section 3 goes on to describe two websites where consumers can find information on annuity rates. Some previous research on the dispersion of annuity rates is discussed in section 4. Section 5 explains the method used to address the research questions and the data sources used, namely an analysis of information on two websites: those of the ABI and the Money Advice Service. The data are analysed in section 6. Section 7 summarises and contains some messages of particular interest for consumers.

2. How do insurers determine annuity rates?

Insurers determine annuity rates by taking into account the expected mortality of annuitants, the investment return they expect to earn, the expenses they expect to incur and their planned profit margin. Mortality has been a particularly difficult area for insurers in recent years as they try to keep up with improving longevity.

[3] This is apparent from the information on the ABI Annuity window (ABI, 2013).

Traditionally, insurers usually quoted the same annuity rate for all individuals of the same age and gender.[4] Using gender ceased in December 2012, following a judgement of the European Court. However, the use of other factors in setting annuity rates has been increasing.

It was in 1995 that Stalwart Assurance began offering higher annuity rates for cigarette smokers, followed by a number of other firms offering enhanced rates to individuals with medical impairments (Ainslie, 2000). 'Enhanced annuities' (as distinct from 'standard annuities') have become increasingly important, accounting for 19% of annuity sales and 27% of premiums in 2011 (Ridsdale, 2012). Fuller (2008) indicated that 40% of retirees could qualify for a higher annuity on health grounds[5]: this implies that some consumers are failing to benefit. One difficulty is that there is no uniform definition of an enhanced annuity, with Harrison (2012) highlighting the difference between cases with full medical underwriting and those that are 'underwriting-light'. One implication is that the dispersion of annuity rates quoted for healthy individuals may understate the loss to consumers who smoke or have a health condition but who do not seek annuities that take this into account.

A more recent development has been the introduction of postcode rating, whereby an insurer offers higher annuities to those living in areas with lower life expectancy. This applies to both standard and enhanced annuities. Refining the annuity pricing process has required increased attention to an actuarial analysis of mortality data. Telford et al (2011) explain that most insurers use postcode by taking information from one of the providers of geo-demographic information.[6] This is linked to mortality data from the Office of National Statistics (ONS), which provides mortality data by local authority area in England & Wales (ONS, 2013). They also mention that insurers can use the experience of their own annuitants as analysed by postcode or some other form of geographical location. Edwards (2009) comments that it is generally impossible to analyse the mortality of postcodes in isolation, and some method of combining ('clustering') postcodes is needed. He shows how one actuarial consultancy does this by using information from various sources ('health clusters', 'lifestyle clusters', 'pensioner mortality clusters' and 'population mortality clusters').

It is also possible to quote different annuity rates according to marital status, since it is known that married people live longer than others (Gardner & Oswald, 2004). The difference is less at older ages (ONS, 2010), so we would ordinarily expect the extra annuity for single people to be less for annuities purchased at higher ages. However, insurers need to be careful if allowing for marital status in their pricing, as there is a tendency for married people to smoke less and have higher socio-economic status than singles (Ben-Shlomo et al, 1993). Therefore, if the annuity rate already takes into account smoking status and (linked to postcode) socio-economic status, only a part of the married/single mortality difference remains to be allowed for.

---

[4] For a given type of annuity, e.g. a level annuity payable monthly in arrears with no guaranteed term.

[5] Wells & Gostelow (2010) commented that the 40% figure has not been validated.

[6] Richards (2008) explains how insurers can use geodemographic profiling to estimate mortality for pricing annuities, although there are possible pitfalls.

3. Annuity rate websites

Consumers buying annuities use a number of sources for information and advice, including financial advisers, their existing pension provider and the press (Crouch et al, 2013). Some consumers use price comparison websites, available from the Money Advice Service or intermediaries, while financial advisers can also access portals that provide comparative quotations and can transact business on-line (Ridsdale, 2012), though Harrison (2012) had a concern was that it is not easy for individuals to find a specialist annuity adviser. Websites can also be useful and some insurers have their annuity rates available in this way. Two websites are of particular interest: from the Money Advice Service (MAS) and the Association of British Insurers (ABI) and these are explored further in this report.

The MAS is the UK statutory body for improving people's understanding and knowledge of financial matters and their ability to manage their own financial affairs. It was set up as an independent body in April 2010, and its statutory objectives are set out in the Financial Services Act 2010. It provides a free and impartial advice service. One way in which it does this is by providing a comparison website covering various financial products, and the ABI Code of Conduct requires its members to signpost this to retirees. At present, the MAS tables for annuities only cover six providers. However, the data cover a variety of individuals' circumstances, including size of fund, age, health, marital status and postcode. The data also cover various annuity types: single or joint life; various frequencies of payment, whether payments are in advance or in arrears, and alternatives for guaranteed term and rate of annual increase of the annuity. Its tables are updated daily.

Another source is the 'ABI Annuity window', launched in August 2013 (ABI, 2013). This is not a price comparison website as such, but instead shows specimen annuity rates offered by ABI members. At launch, the annuity rates shown were based on 12 example customer profiles. The specimen annuities were for a premium of £18,000; the annuitant was 65 years old; the annuity was payable monthly in arrears, of a level amount with no guaranteed term. Three of the customer profiles were for single life annuities to individuals with no health problems, but with different locations (Manchester, Sutton and Wimbledon: the average of three postcodes in each location was used). Three further profiles were for a joint-life annuity where a dependent aged 62 received an annuity at 50% of the original level. Last were customer profiles for individuals in Sutton with three different health conditions (see box): illustrations were for both single-life annuities and joint-life annuities (the dependant being in good health). The illustrations are updated regularly, although with changes to the examples illustrated.

Health conditions (ABI Annuity window)

HC1: Smoked for at least 10 years, high BMI

HC2: Had major stroke, speech affected, currently stable

HC3: Smoked for at least 10 years, lung disease – severely impaired

The above sources provide data on traditional annuities, but there are alternatives such as with-profits and unit-linked annuities, and other possibilities such as income drawdown. When websites consider traditional annuities, there may be concern that individuals are led to choose between solutions that are easy to illustrate rather than consider others that further consideration and advice may show to be preferable. Wells & Gostelow (2010) highlight the potential for consumer detriment arising from choosing the wrong type of annuity. Further, it may be argued that while price is very important, also relevant may be the quality of service offered by the insurer, and its financial strength and risks (although the Financial Services Compensation Scheme applies to annuities). Some individuals will also find that exercising the open market option is not advantageous where their existing pension provider offers a guaranteed annuity rate.

4. The dispersion of annuity rates

There has been some limited work on the dispersion of annuity rates in the UK and how competitive the market is.

James & Vittas (1999) examined annuity rates in Australia, Canada and the UK and noted that, "pay-outs are tightly clustered, especially in Canada where price dispersion is less than 5% from top to bottom. The ready availability of on-line information in Canada may lead to clustering for any company that wants to stay in the market" (page 10).[7] Cannon & Tonks (2008) illustrated the annuity rates quoted by different UK insurers and added that they expected the range between top and bottom to diminish as access to annuity quotations becomes easier. However, as insurers introduce new pricing criteria, there is room for insurers to make different assumptions and dispersion may be high. It may later decrease as insurers gain experience on the accuracy of their new approaches to pricing and in order to avoid adverse selection.

Harrison et al (2006) listed the annuity rates of the top 10 insurers, the differential from top to bottom being about 13% although the first seven were within 5% of the top rate (they suggested that a rate within 5% of the top rate was a competitive rate). They were also concerned that there was no single source of annuity rates for all insurers, noting that the comparative tables then provided by the Financial Services Authority were not comprehensive. From around 13 insurers on those tables there was a difference of about 15% between the highest and lowest rates, although the gap was thought to be up to 30% if all insurers had been included. Oxford Economics (2009) compared the annuities offered by 9 insurers, concluding that the top annuity for 65-year-olds was around 20% higher than the bottom.

Cook et al (2002) showed that many insurers offered rates to their customers which were 85% or more of the best option market option rate, with poorer value for money tending to be offered by smaller insurers that were not marketing annuities actively (although one insurer only selling annuities to its existing customers had an annuity rate greater than the highest on the open market). Gunawardena et al (2008) also noted that one insurer, which only offered annuities to its existing customers had an annuity rate that exceeded the top OMO rate. They suggested that, since the Cook et al study, the working of the market had improved: 78% of contracts sold received 95-100% of the highest OMO rate.

[7] It may be noted that Brown & Goolsbee (2002) found that the price of term assurance in the US declined when information became more easily available on the internet and, as internet use became more widespread, price dispersion reduced.

Rusconi (2008), in a report for the OECD, examined the variation in annuity rates, using data on the annuity rates offered by nine insurers for a single premium of £100,000. He examined 16 specimen annuity quotations in the UK, the alternatives covering male/female, single/joint-life annuity, and different ages, rates of annual increases and guaranteed term. The highest annuity was, in each case, a little over 115% of the lowest annuity. The difference between six of the providers exceeded 5% only once in the 16 cases and he commented that this cluster suggested that strong competition was a feature of the market.

Rusconi also found that the rankings of the providers changed very little across rating factors. One provider was the most competitive in 14 out of the 15 cases for which it quoted. Another was the most expensive in 15 cases; in the 16th it was the second most expensive. This may imply that if a customer identifies an annuity provider as competitive for some specific personal circumstances (age, etc) and annuity type (guarantee term, etc.), then it may well be the case that such provider is competitive for other circumstances and annuity type.

5. Method and data sources

This research examines the data provided by the ABI Annuity window and the Money Advice Service website.

Data from the ABI Annuity window were extracted when it was launched on 21 August 2013; the data refer to July 2013. The annuities shown were those offered for a single premium of £18,000[8] for 12 'profiles', i.e. combinations of circumstances and annuity type as described in section 3, for 27 insurers who are ABI members. Not all insurers provided a quotation for all profiles. Some indicated that they offer the rate offered by another insurer (that other's figure was then included in the analysis) while in other cases an insurer indicated that it offered the rate offered by a panel, in which case it was not included. Some of the insurers in the survey only offered annuities to their existing customers.

This research also obtained data obtained from the website of the Money Advice Service (MAS), pluto.moneyadviceservice.org.uk/annuities, which, at the time of the survey, gave the annuity rates offered by six providers: Aviva, Canada Life, Hodge Lifetime, Legal and General, Prudential and Saga. Two of these are not included in the ABI Annuity window as they are not ABI members (Hodge Lifetime; and Saga, which provides annuities underwritten by Legal & General). All six offer annuities to external customers (i.e. using the open market option) as well as to internal customers. The data were collected for a level single life annuity payable monthly in arrears from a £100,000 [9] premium to each of a 65-year-old and a 74-year-old. For each case rates were obtained as applicable to a married individual and a single individual; and in each case the rates were obtained for level annuities with no guaranteed term and a 5-year and a 10-year guarantee.[10] The individual was a

[8] The average fund size used to buy annuities in 2006 was £16,000 (Gunawardena et al, 2008). Some small funds are commuted for a lump sum.
[9] As in Harrison (2006), Rusconi (2008) and Cannon & Tonks (2008), although this is higher than typical annuity purchases.
[10] Gunawardena et al (2008) found that over 50% of annuities were single life and over 80% were level.

non-smoker without specific health conditions (some insurers who specialise in enhanced annuities do not participate in the website). The rates used were those applicable to 60 postcodes in England & Wales chosen at random from the database of postcodes from Ordnance Survey OpenData. All observations were made on Monday 19 August 2013 (it is known that rates can change from day to day).

This meant that there were 60 (postcodes) x 2 (ages) x 2 (marital status) x 3 (guarantee terms) = 720 'tests', with 6 providers = 4320 potential observations, although one provider did not show the rates applicable to a recently introduced postcode, so that the sample has 4308 actual observations.

For each postcode it is possible to find which unitary or local authority it was part of. The expectation of life at age 65 in 2009-11 for each of males and females in these 'local areas' is available from the Office for National Statistics (2013); the life expectancy for that local area was taken as the average of the male and female figures.

The dispersion of annuity rates is measured in three ways:

- The 'range', taken as the excess of the highest over the lowest annuity as a proportion of the highest;
- the 'top three range', taken as the excess of the highest over the third highest annuity as a proportion of the highest: this can help establish if there is a small group of providers offering similar rates at the top of the range; and
- the coefficient of variation (CV: standard deviation divided by mean) this is a common measure used in economists' surveys of price dispersion (Baye et al, 2004).

A potential disadvantage of the CV is that it can be markedly affected by high prices quoted by firms who do not wish to and do not obtain much business in the market (Baye et al, 2004). The same criticism can be made of the range, which is a further reason for including the top three range as part of the analysis.

The consistency of firms' competitiveness is examined by considering whether the rankings of providers vary across different circumstances.

6. Data and results

ABI Annuity window

Table 1 summarises the results from the ABI Annuity window for each of the 12 profiles.

Table 1. Summary results from ABI Annuity window

	No. of insurers	Mean	Min	Max	Range	Top three range	CV
SL, healthy, Manchester	21	986	840	1100	23.7%	1.78%	7.91%
SL, healthy, Sutton	21	966	840	1100	23.7%	3.43%	6.20%
SL, healthy, Wimbledon	21	950	840	1100	23.7%	7.99%	6.14%
JL, healthy, Manchester	21	880	770	1008	23.6%	4.13%	8.05%
JL, healthy, Sutton	21	865	770	1008	23.6%	9.04%	6.71%
JL, healthy, Wimbledon	21	856	770	1008	23.6%	9.97%	6.34%
SL, HC1, Sutton	17	1160	980	1262	22.4%	4.14%	6.03%
SL, HC2, Sutton	17	1174	980	1278	23.3%	3.42%	6.81%
SL, HC3, Sutton	17	1400	1214	1778	31.8%	9.60%	12.09%
JL, HC1, Sutton	17	990	852	1041	18.1%	0.26%	4.89%
JL, HC2, Sutton	17	990	852	1065	20.0%	3.03%	4.74%
JL, HC3, Sutton	17	1082	987	1193	17.3%	5.02%	4.79%

SL = single life, JL = joint life, HC = health condition (see box above)

First, what is the importance of the rating factors?

Considering healthy individuals, 11 of the 21 insurers did not distinguish by postcode, offering the same annuity in all three districts. Of the 10 others, some differentiated more than others:[11]

- comparing customers in Manchester and Sutton, all 10 offered a higher annuity to those in Manchester: the extra varied from 0.7% to 9.8%;
- comparing customers in Sutton and Wimbledon, 9 insurers offered a higher annuity in Sutton; the highest extra was 9.0%; one insurer offered more to those in Wimbledon (3.9%);[12]
- comparing customers in Manchester and Wimbledon, all 10 offered a higher annuity for Manchester; the highest extra was 10.0%.

Twelve insurers offered quotations for both healthy individuals and the six profiles with health conditions. Compared to what was quoted for healthy individuals, the extra annuity for HC1 (health condition 1) varied from 0 to 42%; for HC2 from 1% to 43%; for HC3 from 10% to 84%. The highest additions were rather less for joint life annuities, where the dependant was assumed to be in good health.

Second, what is the dispersion of annuity rates?

Table 1 shows the three dispersion measures. The range averages 22.9%, i.e. someone choosing the lowest rate would receive 22.9% less than someone with the highest. The range exceeds 30% in the case of a single life annuity for individuals with HC3. The top 3 range averaged 5.2% although it varied noticeably across the profiles; the average coefficient of variation was 6.7%.

[11] The figures below relate to single life annuities.

[12] ONS (2013) shows that life expectancy at 65 is higher in the district authority in which the Wimbledon postcodes are located by 0.5 years (male) and 0.4 years (females) compared to Sutton.

If the focus is on insurers who offer annuities to external customers who are healthy lives, there are 8 such firms, and the data are in Table 2. The range is, as expected, less.[13] It is noticeable that the mean annuity from these firms open to external customers, at £915, is almost identical to that from all firms (£917 from Table 1). In other words, firms that are only open to internal customers do not, on average, give their customers a worse deal.

Table 2. Summary results from ABI Annuity window from firms offering standard annuities to external customers

	No. of insurers	Mean	Min	Max	Range	Top three range	CV
SL, healthy, Manchester	8	985	840	1080	22.3%	0.97%	9.16%
SL, healthy, Sutton	8	961	840	1062	21.0%	7.02%	7.24%
SL, healthy, Wimbledon	8	942	840	1024	18.0%	5.05%	6.89%
JL, healthy, Manchester	8	883	770	978	21.3%	2.81%	8.51%
JL, healthy, Sutton	8	864	770	967	20.4%	9.08%	7.03%
JL, healthy, Wimbledon	8	853	770	929	17.2%	4.48%	6.32%

Third, are the rankings of insurers consistent?

Considering the six healthy profiles first, data are available for 21 insurers.[14] One insurer offered the highest annuity in each case (although it only offered annuities to its existing customers). Another firm, which also offered annuities to external customers, quoted the lowest rate in all six profiles. Hence, at the extremes, there was consistency: a firm offering a high (low) rate in one case offered a high (low) rate in other cases. However, it needs to be borne in mind that the quotations cover only three local areas.

Looking at the annuities offered to individuals with a health condition, where there were six profiles,[15] five different insurers appeared in top position, one of which was the firm that was least competitive for the six profiles for healthy lives. This therefore suggests that, where annuities are offered for a health condition, the ranking of insurers differs, and a customer cannot assume that an insurer that is competitive in one situation will be so in another.

Money Advice Service

Before presenting the results, it is worth examining how the 4 insurers in the MAS survey fare in the profiles in the ABI Annuity window. For healthy individuals, the MAS insurers quote annuities on the ABI Annuity window, that are, on average, 4.5% higher than the average. However, for those with a health condition, the MAS insurers offered an annuity that was, on average, 1.7% less than the average on the ABI Annuity window. In other words, the MAS website appears, on this evidence, to

[13] Athough the coefficient of variation is greater in 5 out of 6 profiles.

[14] The six profiles are those in Table 2, but encompassing not only the eight insurers offering annuities to external customers but also the 13 others who offer annuities only to their existing customers.

[15] For each of three different health conditions, the annuity was quoted for both a single life annuity and a joint life annuity,

include competitive firms for health lives but it does not include some specialist insurers who are competitive for individuals with a health condition.

To revert to the research questions, first, what is the importance of the rating factors? The focus here is on marital status and postcode, as the sample was restricted to healthy individuals.

Table 3 shows the average annuity quoted for each combination of age, marital status and guarantee term. Naturally, the mean annuity is higher for the higher age, lowest guarantee term and single status.

Table 3. Summary data of annuities from MAS survey

Age	Guaranteed term	Marital status	Mean	Min	Max	Mean range	Mean top 3 range	Mean CV
65	0	Married	5711	4900	6304	14.9%	2.25%	5.70%
65	5	Married	5694	4891	6294	14.9%	2.12%	5.75%
65	10	Married	5634	4866	6247	14.6%	1.84%	5.70%
74	0	Married	7399	6274	8198	15.0%	3.26%	5.68%
74	5	Married	7323	6226	8043	14.6%	2.89%	5.57%
74	10	Married	7065	6072	7612	13.7%	2.50%	5.23%
65	0	Single	5714	4900	6304	15.0%	2.35%	5.77%
65	5	Single	5697	4891	6294	15.0%	2.24%	5.77%
65	10	Single	5637	4866	6247	14.7%	1.94%	5.72%
74	0	Single	7404	6274	8235	15.2%	3.46%	5.73%
74	5	Single	7328	6226	8077	14.8%	3.08%	5.56%
74	10	Single	7069	6072	7612	13.7%	2.57%	5.25%

Only one firm quotes a different annuity for single as compared to married people.[16] The increase available for singles, where there is no guarantee term, averages 0.28% at age 65 and 0.43% at age 74.[17] The increase is somewhat lower for annuities with guaranteed terms, where the impact of mortality assumptions is less.

One firm does not differentiate between postcodes. The others differ in the degree of granularity they use. Consider, for example, the annuities quoted for a married 65-year-old with no guaranteed term. With 60 different postcodes tested, a provider might have quoted 60 different annuity amounts. None did: one provider had 25 different amounts (the most), another had only 6. The differences between firms were similar for other ages and guaranteed terms.

To what extent does the annuity rate differ according to the individual's postcode? Looking at firm C as an example, Chart 1 shows the distribution of annuity rates it offers for a married 65-year-old and no guaranteed term across the 60 postcodes, e.g. it offers 5750-5849 in 19 postcodes (i.e. 19 tests). Table 4 summarises the figures for the six firms and shows that some insurers offer an annuity that is a little over 10% higher in some postcodes compared to others. Firm D has the greatest variation

[16] In practice, the position is slightly more complex, e.g. regarding individuals who are intending to marry.
[17] The higher addition at older ages differs from what was expected on the basis of the data in Office of National Statistics (2010).

(measured by coefficient of variation); this was also true for other age/guarantee/marital status combinations.

Chart 1. Annuities offered by firm C: how they vary by postcode for married 65-year-olds and no guaranteed term (MAS survey)

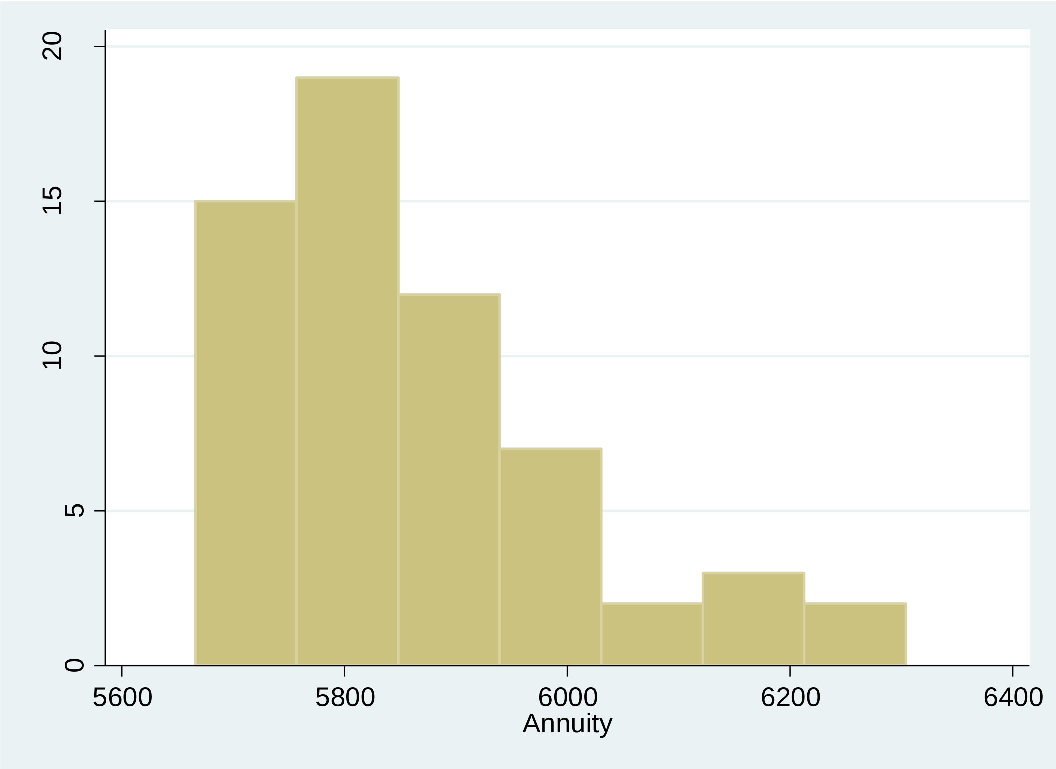


Table 4. How annuity rates vary by postcode for each provider (for a married 65-year-old and no guaranteed term) in MAS survey

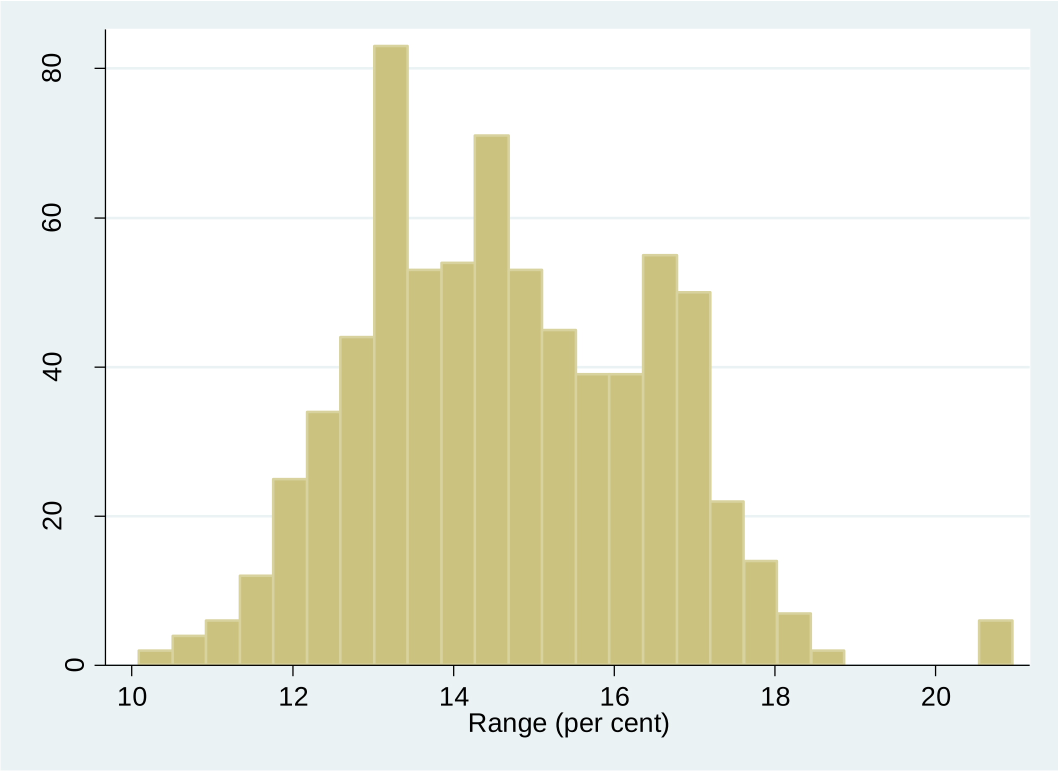
Firm	Mean	Min	Max	Max/Min	CV
A	5854	5694	6181	108.6%	2.22%
B	5083	4900	5171	105.5%	1.69%
C	5850	5666	6304	111.3%	2.58%
D	5874	5521	6155	111.5%	3.13%
E	5899	5741	6100	106.3%	2.25%
F	5709	5709	5709	100.0%	0.00%

The annuity amounts quoted are clearly related to life expectancy. An approximate calculation can be made, for each postcode, of a 'notional annuity' available for a £100,000 premium to a 65-year-old, if costed as an annuity-certain for the life expectancy for the local area given in ONS (2013), allowing for 3% p.a. interest and no loading for expenses or profit.[18] Firm C has the closest relationship between the annuities it quotes and the notional annuity.[19]

The calculation of a notional annuity uses the ONS data for life expectancy, which include both healthy and other lives. Since the data on annuities in the MAS survey relates to healthy lives, it is expected that the variation, between postcodes, in the notional annuity, will exceed the variation in a provider's quoted annuities. This is indeed the case.

Second, consider dispersion of annuity rates. Using the data in Table 3 the average range, across the 60 tests, is 14.7%; this is lower than in the ABI Annuity window and may reflect the lower number of firms involved. However, in some tests, the range was noticeably lower or higher than the average, this being illustrated in Chart 2. The range exceeded 20% in six tests (all in one postcode). The dispersion decreases as the guarantee term increases, especially at age 74, as this means there are fewer years left where the annuity amount can be affected by providers making different mortality assumptions.

Chart 2. Range across all tests (MAS survey)

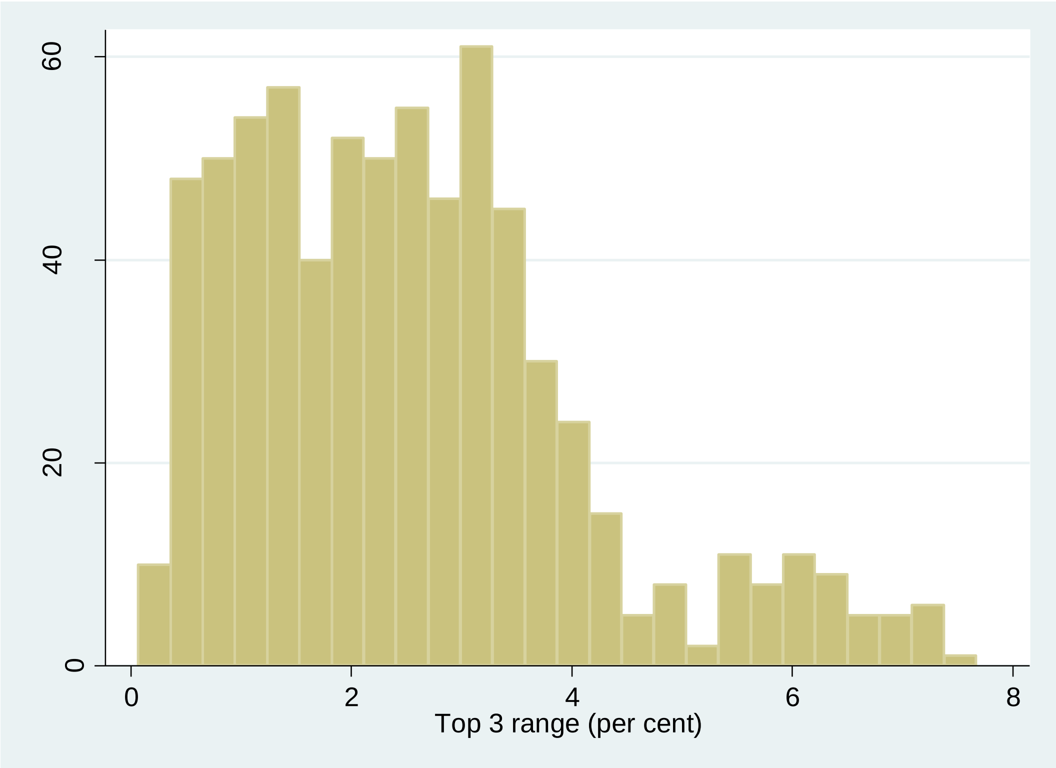


[18] This calculation ignores future reductions in mortality, which insurers do take into account in their pricing.

[19] The Pearson correlation coefficient measures the closeness of the relationship. This coefficient was calculated for each of the five insurers that differentiate between postcodes, given the annuities they offer for a 65-year-old with no guarantee. The highest is 0.5562 (firm C) and the lowest is 0.3189 (firm D). The Spearman correlation coefficients are similar.

The top 3 range averages 2.5%, consistent with the view that the prices among firms clustering at the top are quite similar. Bearing in mind the suggestion that a rate within 5% of the top rate is competitive, it is noted that the 3rd highest was within 5% of the top rate in almost all tests (92%). In 42% of tests the 3rd highest was within 2% of the top rate (see Chart 3).

Chart 3. Top 3 range across all tests (MAS survey)



Third, are the rankings of insurers consistent?

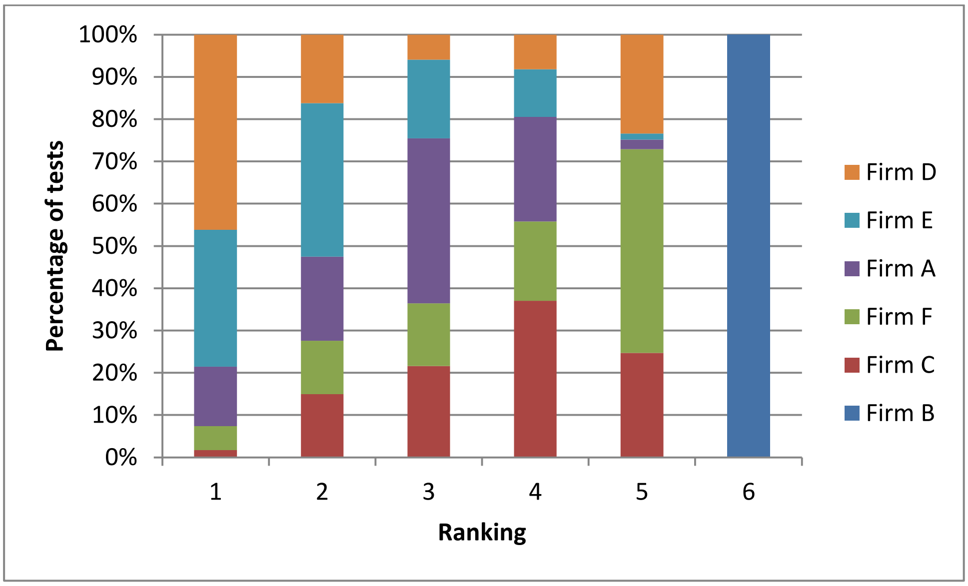
For each of the 708 tests where there are 6 providers, the rank of each provider was calculated, and Table 5 shows the number of observations where each insurer occupied each position. Firm D was top ranked in 327 tests, more than any other insurer; however, its second most frequent ranking was fifth. The firm that had the average lowest rank (i.e. highly competitive) was E (average rank = 2.13), and next was D (2.46). Firm B was the least competitive insurer in all tests.

Table 5. Frequencies of rankings in MAS survey

	1	2	3	4	5	6
A	100	141	276	175	16	0
B	0	0	0	0	0	708
C	12	106	153	262	175	0
D	327	115	42	58	166	0
E	229	257	132	80	10	0
F	40	89	105	133	341	0

Chart 4 shows this information in graphical form. Firm D appears more often than any other firm with rank of 1, but also has a rank of 5 in several tests. Firm E is usually first or second, and less likely to have a rank of 3, 4 or 5. Firm B always occupies 6th position.

Chart 4. Frequencies of rankings in MAS sample



Different insurers appear to be competitive in different segments of the market. For example, considering married males aged 74 with a guaranteed term of 10 years, the firm that has most top rankings is not firm D but firm E (ranked first in 47 out of 59 tests).

More annuity business is sold to individuals with high as opposed to low income, and it is therefore useful to show the frequencies of rankings of tests in postcodes where life expectancy at age 65 exceeds the average (median). The results are shown in Table 6 and, as in Table 5, firm E had the lowest average rank (i.e. highly competitive: average rank 2.16), with firm D second (2.41), although D had the greatest number of top rankings.

Table 6. Frequencies of rankings in MAS sample for postcodes with high life expectancy

Firm	1	2	3	4	5	6
A	46	46	122	130	4	0
B	0	0	0	0	0	348
C	0	62	53	101	132	0
D	173	48	20	24	83	0
E	98	134	82	30	4	0
F	31	58	71	63	125	0

It is also noted that firm B, despite being uncompetitive in the analysis using the MAS survey, was top in of one of the profiles in the ABI Annuity window for a health condition. This is further evidence that the competitiveness of providers depends on the circumstances.

One further comparison is of interest. If a provider is regarded as competitive if its annuity is within 5% of the top rate (see Harrison et al, 2006; 5% being regarded as the 'competitiveness margin'), then firm E has a competitive annuity rate in 97.5% of all tests (Table 7). Firm D, although having the most top rankings, is 4th in this measure. Overall, 70.7% of annuities quoted were competitive. Alternatively, if the competitiveness margin is 2%, E scores best and D is second.

Table 7. Proportion of tests where a firm offers an annuity that is within the competitiveness margin (MAS survey)

Firm	Competitiveness margin	
	5%	2%
A	87.0%	41.8%
B	0.0%	0.0%
C	85.9%	35.9%
D	83.6%	63.7%
E	97.5%	72.0%
F	70.1%	23.4%
Total	70.7%	39.5%
Total excluding firm B	84.8%	47.3%

8. Conclusions

Summary

This research uses the ABI Annuity window and the Money Advice Service (MAS) website to investigate annuity rates in the UK.

Many annuity providers, especially those active for open market options, now use postcode and health status to determine the annuity rates they offer, though this far from universal. For some providers, an annuity in one postcode may be more than 10% higher than in another postcode. Health conditions can also make a big difference: although the ABI Annuity window provided data on just three examples, one insurer quoted an annuity rate 84% higher in one case for an enhanced compared to a standard annuity. Use of marital status in determining annuity rates is less common.

The variation in annuity rates between providers can be substantial. The survey examined what the MAS website showed as the annuity rates offered by 6 providers in a variety of circumstances, for individuals with different ages, living at different postcodes and where the annuity was guaranteed for different lengths of time; on average, the range from top to bottom annuity rate was 14.7%. Using the ABI Annuity window, with a greater number of providers, the range averaged 22.9%. However, there are some firms clustered at the top with relatively small differences in the annuity rates they quote. In the MAS results, the difference between the top rate and the 3rd highest was 5% or less in 92% of the cases in the survey, and was 2% or less in 42%.

The analysis finds that a provider that is competitive in some cases may not be so in others. Firms' competitiveness does differ depending on the type of annuity (guaranteed term), the retiree's circumstances (age and health status) and postcode. Therefore, knowing that an insurer is competitive in some cases is of limited use as regards its competiveness in another situation. This is a change since a report for the OECD (Rusconi, 2008) and may reflect the way in which the UK annuity market has become more complex as providers have introduced new factors into the way they set annuity rates.

Messages for consumers

Four messages for consumers stand out.

First, do not assume that if your pension provider does not market annuities externally, you will get a poor annuity rate: the evidence from the survey is that such providers offer rates that are, on average, about the same as providers who are active in the market for external annuities.

Second, the research confirms that when you look at open market options, there is a substantial range between the top and bottom annuity rate: it may well exceed 15-20%.

Third, if your circumstances could lead to an increased annuity (as a result of postcode, smoking or ill-health or single status), check whether your proposed annuity provider credits you with more annuity income as a result: although that doesn’t necessarily produce the best deal overall.

Fourth, do check on the competition for your own circumstances and annuity type: do not assume that an insurer that is competitive in other situations will be best in yours.

Limitations

While the survey using the Money Advice Service website included 4308 observations, there are nonetheless a number of limitations. First, the data were collected on only one day and this is not necessarily representative of the market position at other times. Second, it covers only six providers. Third, the survey did not cover the full range of annuity types and customer circumstances: for example individuals with health conditions or where the annuity increased over time or included a dependant's pension. There are also some forms of annuity not covered by the Money Advice Service, such as with-profits or unit-linked annuities. The ABI Annuity window, while covering more providers, is also limited in the number of circumstances and annuity types that it covers, and the data in the survey used here are not necessarily representative of the position in the future.

References

ABI (2012). Consumers in the Retirement Income Market. Code of Conduct on Retirement Choices.

ABI (2013). ABI publication of example annuity rates will help people make the right pension choice. https://www.abi.org.uk/News/News-releases/2013/08/ABI-publication-of-example-annuity-rates-will-help-people-make-the-right-pension-choice, downloaded 23 August 2013.

Ainslie, R (2000). Annuity and insurance products for impaired lives. Paper presented to the Staple Inn Actuarial Society.

Baye, M.R., Morgan, J. & Scholten, P. (2004). Price dispersion in the small and in the large: evidence from an internet price comparison site. *Journal of Industrial Economics*, 52, 4, 463-496.

Ben-Shlomo, Y., Smith, G.D., Shipley, M. 7 Marmot, M.G. (1991). Magnitude and causes of mortality differentials between married and unmarried men, *Journal of Epidemiology and Community Health*, 47, 200-205.

Brown, J.R. & Goolsbee, A. (2002) Does the internet make markets more competitive? Evidence from the life insurance industry, *Journal of Political Economy*, 110, 3, 481-507.

Cannon, E. & Tonks, I. (2008). *Annuity markets.* Oxford: Oxford University Press.

Cook, M., Earley, F., Ketteringham, J. & Smith, S. (2002). Losing interest: How much can consumers save by shopping around for financial products? FSA Occasional paper no. 19.

Crouch, K., Allen, G., Whitehead, F., Carter, A. & Levy, R. (2013). Retirement choices: baseline to measure effectiveness of the code of conduct. Report by Optimisa Research for the Association of British Insurers.

Edwards, M. (2009). Pension mortality by postcode. *Life Insurance Matters*. Towers Watson.

Financial Conduct Authority (2013). Transparency. Feedback on DP13/1.

Financial Services Authority (2013). Thematic review on annuities. *Insurance conduct supervision newsletter*, issue 1, p.3.

Fuller, M. (2008). Annuities: no longer the healthy option? The implications of segmentation, *Pensions*, 13, 4, 201-206.

Gardner, J. & Oswald, A. (2004). How is mortality affected by money, marriage and stress? *Journal of Health Economics*, 23, 1181-1207.

Gunawardena, D., Hicks, C. & O'Neill, D. (2008). Pension annuities. ABI Research paper no. 8.

Harrison, D. (2012). Treating DC members fairly in retirement? Pensions Institute and National Association of Pension Funds.

Harrison, D., Byrne, A. & Blake, D. (2006). Annuities and accessibility – how the industry can empower consumers to make rational choices. Pensions Institute, Cass Business School.

James, E. & Vittas, D. (1999). Annuity Markets in Comparative Perspective. Do Consumers Get Their Money's Worth? The World Bank Policy Research Working paper.

Office of National Statistics (2010). 2008-based National Population projections by marital status. http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Projections+by+Marital+Status

Office of National Statistics (2013). Life expectancy at birth and at age 65 for local areas in England and Wales, 2009-11: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-314574

Oxford Economics (2009). The macroeconomic impact of shopping around for retirement income. Report for the Pension Income Choice Association.

Richards, S.J. (2008). Applying survival models to pensioner mortality data. *British Actuarial Journal*, 14, 257-303.

Ridsdale, B. (2012). Annuity underwriting in the United Kingdom. Note for the International Actuarial Association Mortality Working Group. Downloaded from http://www.actuaries.org/index.cfm?lang=EN&DSP=CTTEES_TFM&ACT=IB_underwriting on 3 October 2013.

Rusconi, R. (2008). "National Annuity Markets: Features and Implications", *OECD Working Papers on Insurance and Private Pensions*, No. 24, OECD publishing, © OECD. doi:10.1787/240211858078

Telford, P.G., Browne, B .A., Collinge, E.J., Fulcher, P. Johnson, B.E., Little, W., Lu, J.L.C., Nurse, J.M., Smith, D.W. & Zhang, F. (2011). Developments in the management of annuity business, *British Actuarial Journal*, 16, 3, 471-551.

Wells, J. & Gostelow, M. (2010). Annuitisation process and consumer detriment. An initial investigation of issues. Paper for the Financial Services Consumer Panel.