Insurance: Mathematics and Economics 56 (2014) 14–27

Contents lists available at ScienceDirect

Insurance: Mathematics and Economics

journal homepage: www.elsevier.com/locate/ime

Bringing cost transparency to the life annuity market

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HIGHLIGHTS

- We propose a new type of pooled annuity fund.
- The fund is actuarially fair at every instant, irrespective of group heterogeneity.
- It enables mortality gains, investment returns and costs to be separated.
- Participants can exit at any time without paying a financial penalty.
- Participants have genuine individual investment freedom.

ARTICLE INFO

Article history:
Received October 2013
Received in revised form
January 2014
Accepted 16 February 2014

JEL classification:
G22
G23

Subject category and insurance branch category:
IM51
IB81

Keywords:
Investment
Pensions
Pooled annuity fund
Lifetime savings
Mutual risk-sharing

ABSTRACT

The financial industry has recently seen a push away from structured products and towards transparency. The trend is to decompose products, such that customers understand each component as well as its price. Yet the enormous annuity market combining investment and longevity has been almost untouched by this development.

We suggest a simple decomposed annuity structure that enables cost transparency and could be linked to any investment fund. It has several attractive features: (i) it works for any heterogeneous group; (ii) participants can leave before death without financial penalty; and (iii) participants have complete freedom over their own investment strategy.

1. Introduction

Over 40% of all private industry workers in the US are saving for their retirement through a defined contribution plan (Bureau of Labor Statistics, 2012, Table 2). While the overall value of assets held in these plans is immense, being approximately \$10 trillion in the US in 2012 (Towers Watson, 2013), individuals' asset values can be small. For example, the median asset value held by those age 55 or older in funds run by Vanguard, a large mutual fund company, was around \$60 000 in 2011 (The Vanguard Group, 2012). A similar magnitude of savings is reported in Poterba et al. (2011, Table 2) for people age 65–69 in the year 2008. With the lifetime guaranteed income offered by Social Security and defined benefit pension plans declining relative to pre-retirement income (Webb, 2011), millions of individuals must maximize their retirement income arising from their defined contribution plan savings. They cannot afford to pay unnecessary charges and fees.

Yet in the life annuity contract, which economic theory recommends as a significant component of the optimal retirement investment strategy (Yaari, 1965; Davidoff et al., 2005), costs are hidden from the customer (Blake, 1999; Stewart, 2007). We argue that cost transparency in life annuities is very important, due to the generally irreversible and very long-term nature of these contracts, which potentially involves all of the life savings of individuals. Consumers have no idea if annuity prices are fair, or if insurance

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http://dx.doi.org/10.1016/j.insmatheco.2014.02.003
0167-6687/

companies are either making excessive profits or are grossly inefficient (Carlin, 2009; Del Guercio and Reuter, in press; Glode et al., 2012). We present a solution to these difficulties. We propose a decomposed annuity structure that could be linked to any investment and that enables all costs to be disclosed. Our aim is to improve the transparency of the financial and insurance products that are offered to retirees. Greater transparency may also improve the financial regulation of these products (Kalemli-Ozcan et al., 2013).

In the classical life annuity contract, called a fixed-payout life annuity,[1] the annuitant is charged a single (i.e. lump sum) premium and in exchange receives a fixed income stream for life. The anticipated ongoing costs are not disclosed explicitly to the potential annuitant. (Some insurance companies may charge explicitly for sales commission and the initial administration costs of setting up the annuity contract.) All the potential annuitant knows is the amount of lifetime income that her lump-sum retirement savings will buy. To evaluate the worth of the annuity compared to other investments, the customer must make a number of sophisticated assumptions and complicated calculations. Generally, it is an irreversible contract, so the customer must trust that the insurance company will continue to pay the income stream over her future lifetime, which may be for decades. It is notable that, worldwide, relatively few people voluntarily annuitize their retirement wealth[2] (Brown, 2007; Mitchell and Piggott, 2011).

The main reason for the opacity of life annuity contracts is that investment risk is combined with mortality risk and costs are not disclosed by the insurance company. As a consequence, life annuities are not comparable on either an individual risk component basis or on a cost basis. This intransparency has generated a body of literature that questions if annuities offer value-for-money to the annuitant (for example, Mitchell et al., 1999 and Cannon and Tonks, 2009). Typically, the authors calculate the expected value of a fixed-payout life annuity, using what they believe to be a reasonable calculation basis. Their estimated prices are then compared to those quoted in the market by insurance companies. The difference in the values gives an indication of the amount of costs and profit expected by the insurance companies during the contract period.

Unsurprisingly, given the sensitivity of annuity prices to the mortality and investment return assumptions, there is a wide variation in the results. For example, in Mitchell et al. (1999, Table 3) the annuity prices quoted by insurance companies in the US in 1995 are between 74% and 94% of the authors' calculated expected values. A similar range is observed in the UK by Cannon and Tonks (2009). Without more information from insurance companies concerning their annuity calculation basis, we can only hypothesize about the reasons for the range of results. It may be due to the insurance companies assuming a different calculation basis than in the studies. For example, the insurance companies may invest in riskier assets than those assumed in the studies, or they may assume that annuitants live longer. It may be due to insurance companies' costs, profit and risk capital requirements, or it may be competitive reasons. Without more information it is difficult to draw strong conclusions concerning the value-for-money of annuities.

The lack of information also means that is not clear if annuity prices quoted by insurance companies are competitive, as they can vary significantly across companies (Mitchell et al., 1999; Cannon and Tonks, 2009). Furthermore, even if the annuity market is competitive, it does not follow that consumers have low costs (Orszag and Stiglitz, 2001). For example, in the related mutual fund market, fees can be too high (e.g., see Crespo, 2009 for the Spanish mutual fund market, and Gil-Bazo and Ruiz-Verdú, 2009 for the US market) and brokers can offer no tangible benefits in exchange for high distribution fees (Bergstresser et al., 2009).

Moreover, the annuity marketplace is not as straightforward as might be imagined. Consider the annuity rate, which is the ratio of the annual income guaranteed for life by the insurance company to the single premium. Typically, the "headline" annuity rates quoted in the popular press are for a single premium of \$100 000. An annuity rate of 5% means that the annuitant receives \$5000 per annum in exchange for the upfront payment of \$100 000. However, an insurance company that offers the highest headline annuity rate may not offer the highest annuity rate for other amounts of single premium. It may be a tactical decision by the insurance company (Harrison, 2012), or due to fixed costs incurred by selling each annuity contract, or simply a reflection of the fact that annuity rates are not necessarily constant across same sex individuals of the same age; a wealthy man may have a higher expected lifetime than a poor one, resulting in a lower annuity rate for the former.

The need for a transparent annuity market is critical so that individuals can make informed decisions on how to manage their assets. They are required to make very complex decisions on how their retirement will be financed. For example, they have to take account of relatively concrete factors such as Social Security benefits, housing, income from other pension plans, as well as taking a view on unknowns like future inflation, life expectancy and future healthcare costs. There are other considerations regarding the individual's quality of life, as well as the desire to bequeath money to others; see Smith and Keeney (2005) on making decisions about investments in quality of life.

With academic studies able to give only a broad indication if the prices of life annuities are fair, the ability of ordinary consumers to judge their value is likely to be much lower. Many individuals are unaware of basic economics and finance (Lusardi and Mitchell, 2011) and lack confidence in their financial literacy (Graham et al., 2009). Furthermore, the simple life annuity is in competition for retirees' savings with much more complicated structured products. The latter include various financial and insurance options and guarantees, which makes it difficult to ascertain if they offer value-for-money (Carlin et al., 2013). Indeed, attempts to value some of the mortality options in variable annuities are the subject of highly technical academic papers (e.g. see Milevsky and Promislow, 2001 and Milevsky and Posner, 2001, the latter finding that market prices for insurance risk charges are substantially above their theoretical values). If we can make the basic life annuity contract more transparent, then perhaps we can also improve the transparency of these more complicated products.

We present an annuity overlay fund that enables cost transparency while giving one of the main benefits of the life annuity, namely the pooling of mortality risk across a group of people. It overcomes several disadvantages of the life annuity.

- Cost transparency. Within the proposed annuity overlay fund, costs can be charged to each individual as they occur. As investment risk is separated from mortality risk, costs can be attributed to each source independently. For example, administration costs, investment management fees and sales commission can be charged separately to the consumer. If an individual believes that the investment management fees are too high, then they can switch to another fund manager (Blake et al., 2013; Christoffersen et al., 2013).
- Control over investments. With an annuity overlay fund, each individual retains absolute control over their own investments. They can decide how much to invest and how to allocate those investments among any asset class. They can include their house among the assets while continuing to live there. Contrast this with a life annuity contract, in which the individual no longer has any investments since the underlying assets are held by the insurer.

[1] More specifically, it is a single premium immediate level annuity written on a single life.

[2] A phenomenon referred to as the *annuity puzzle* Recent reviews of the literature on the annuity puzzle can be found in Brown (2009) and Lown and Robb (2011).