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Annuities Markets

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## ABSTRACT/RÉSUMÉ

### *Policy issues for Developing Annuities Markets*

Annuities are specifically designed to cover the risk that an individual outlives their own resources by transferring such risk to an insurance undertaking. Despite an increasing need for annuity products (due to increasing longevity, decreasing state pensions, a rise in Defined Contribution pension plans etc.), these markets remains under-developed in many OECD countries. This paper attempts to address why this is the case and what policy options exist for encouraging annuity markets to develop

*JEL codes:* J32, G32, G29

*Keywords:* Annuities; annuity markets; private pensions; retirement; defined contribution plans; defined benefit plans.

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### **Politiques pour le développement du marché viager**

Les rentes viagères sont particulièrement adaptées afin de couvrir le risque qu'un individu survive au-delà de ses propres ressources, en transférant un tel risque à une entreprise d'assurance. Malgré la nécessité croissante de produits de rente viagère (attribuable à l'augmentation de la longévité, la réduction de la pension publique, et le succès des plans de pension à cotisations définies), ces marchés restent sous-développés dans la plupart des pays de l'OCDE. Ce document étudie les raisons qui peuvent expliquer cette situation et quelles options de politique peuvent aider à développer ce marché.

*Classification JEL :* J32, G32, G29

*Mots clés:* Rente viagère, rente, viager; marchés de rente; pensions privées; retraite; plans de pensions à prestation définie; plans de pension à cotisations définies.

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## POLICY ISSUES FOR DEVELOPING ANNUITIES MARKETS

F. Stewart<sup>1</sup>

### I. Introduction

1. After an initial discussion of longevity and ageing issues in the previous Insurance and Private Pensions Committee meeting, it was decided to return to these important topics and to look at policy implications in more detail. Annuities<sup>2</sup> are specifically designed to cover the risk that an individual outlives their own resources by transferring such risk from the individual to an insurance undertaking or other annuity provider. As previously discussed by the committee, increasing longevity, decreasing state pensions (which are frequently de facto indexed, life annuities) and a rise in defined contribution pension plans (shifting responsibility for retirement income to individuals) have resulted in a greater need for annuity products.

2. Yet societies and employers have begun to rethink how much they are willing to underwrite annuity risks, and annuities markets remains under-developed in many countries<sup>3</sup>. Pension reforms have so far tended to focus on the accumulation rather than the payout phase, but as the ‘baby-boom’ generation heads to retirement age, the latter phase will become increasingly important and will require more attention. While several mechanisms may be in place for defined benefit plans, it is expected that annuity markets will become more important, especially with the shift to defined contribution schemes. This paper focuses on these private annuities markets, generally provided by insurance companies. The questions addressed in this issue note are why annuity markets have not developed further, and what policy options exist for encouraging them to expand?

### II. Supply Side Constraints

#### *i. Pricing*

3. Reasons for a lack of annuities products can be found on the supply side of the market – with insurance companies increasingly unwilling to offer these products (or to offer them at attractive prices) and few reinsurance companies prepared to take on their risks. This is partly due to the problems the insurance companies themselves have encountered in pricing annuities - largely due to the difficulties of forecasting

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<sup>2</sup> The annuities considered in this paper are private, life, pension annuities - i.e. financial contracts that provide a monthly or annual sum to an individual in retirement as long as they live. Other annuity products such as fixed term annuities or non retirement related annuities are not specifically discussed here.

<sup>3</sup> OECD countries such as Australia, Canada, Switzerland, the United States and the United Kingdom being exceptions, as well as non OECD countries such as Chile and Singapore.

mortality. A surprisingly large number of countries lack the demographic data that are necessary to construct accurate mortality projections, and in practice use the life tables of another country (for example Australia uses data from the UK population). In addition, insurers have been faced with the problem of life expectancy of the population as a whole rising faster than forecast in recent years, and no model has yet been developed that gives accurate predictions of the rate of this longevity increase. Annuity providers therefore remain exposed to the risk that mortality rates of pensioners will fall at a faster rate than accounted for in their pricing and reserving calculations. Insurers also have problems distinguishing between different segments of the population and their own annuity pool to overcome problems of adverse selection. Even where such differences can be predicted, insurers may be restricted in their use of data. For example, in the United States (unlike the European Union) differential policy pricing is allowed between men and women, but it is not lawful to discriminate between races in the pricing of annuities, even if there are significant differences in longevity amongst them. The issue of whether to allow genetic testing is also being debated in many countries.

4. Given that annuities are relatively ‘low margin’ financial products, if incorrect mortality assumptions are used they can prove unprofitable for providers (market participants in the UK, for example, claim to lose money on annuities). In addition, though in theory an insurance company’s life business may offer a hedge against mortality vs. annuities (as the life business becomes more profitable when longevity rises), if the proportion of annuities business becomes too large such a natural hedge may not be possible – though in practice the difference in life and annuity policy holders (age profile etc.) and the small annuity markets make this possibility some way off. Some insurers that have carefully considered the risks involved may be even starting to rethink their exposure to longevity risk through annuities, whilst the appetite of reinsurers for longevity is also proving limited.

5. Life insurers are the main supplier of annuities, having dominated this business as the actuarial and financial management skills required to price and fund life insurance contracts are the same as those required to price and fund annuities. However they are not the only providers. For example, in Ireland these products are also supplied by financial services groups, whilst in Italy the main providers are banking groups and in Hungary pension fund companies may also provide annuities (if they meet certain capital requirements). Yet the same longevity and consequent pricing challenges affect these potential providers as well.

## *ii. Matching Assets*

6. A further supply side constraint is that insurers have trouble finding assets to match the liabilities represented by the annuity products they sell. A life insurer selling annuities faces a variety of risks including credit risk, liquidity risk, business risk, investment risk and longevity risk. With the latter two risks, though assets are required which can hedge interest rates, inflation and longevity over a long time horizon, most government paper, (and high rated corporate bonds), is short to medium term, with long-term assets still limited in supply relative to demand, as perhaps evidenced by the low level of long-term government bond instruments in major markets. Nonetheless, recent issuance of up to 50 year paper has been undertaken by several governments. Index-linked paper is also in short supply, and only a few experimental products exist for hedging longevity risk. Without suitable assets, allowing insurers to match their liabilities and avoid reinvestment risk, annuity supply is likely to continue to be hampered. The question therefore arises as to what role governments can or should play in facilitating the transfer of or sharing exposure to longevity and other risks, and what policy initiatives could be introduced to help alleviate these supply side constraints?

### *iii. Solvency*

7. Solvency requirements are another factor which may have the potential to affect the supply of annuity products. Capital adequacy and reserving are key measures for protecting against the insolvency of insurance companies, and therefore for protecting annuity holders. However, what level of reserves should be required is a matter for debate. While supervisors naturally take a conservative stance, ensuring that firms can meet future liabilities, firms themselves tend to prefer a low level of reserves in order to maximise profits. The approach of accountants and internal risk managers tends to be somewhere in the middle. The chosen level of reserves feeds directly into the pricing of policies, given a desired return on capital. If capital requirements are too high, and profitability too low, the supply of products may be impaired. Distinctions also need to be made between unit-linked and other annuity products where risk is past on to the annuitant, vs. annuities with guarantees, where the insurance company continues to bear longevity, investment and other risks, and where stricter solvency protection is therefore required. As solvency requirements are now risk-based, these issues carry ever more weight.

## **III. Demand Side Constraints**

### *i. Complexity of products*

8. In addition to supply side problems, there are various factors that may have limited demand for annuities - some of which may be genuine problems with the products and others more related to a lack of understanding on the part of consumers. Despite academic research proving the value of annuities and the contributions they can make to secure retirement incomes, surveys across countries consistently, and somewhat surprisingly, reveal the unpopularity of these products. The attractiveness of annuities can be reduced by the risk of inflation eroding fixed annuity pay-outs, their illiquidity, administrative costs, adverse selection, a lack of transparency in their pricing and often inappropriate advice provided by financial intermediaries. In surveys across countries individuals complain about the lack of flexibility in annuity products - from a lack of ability to vary income levels and the timing when they must be purchased, to the inability to bequest assets to survivors.

9. One of the factors limiting demand is that consumers do not seem to understand the pricing of annuities and often see them as 'bad value' - which prevents them from understanding the benefits these products can provide. For example, the expected return or the insurance value of a life annuity can be hard to grasp, and providers argue that people do not understand the concept of a 'shared risk pool', allowing an insurance company to make the same promise for life to all holders of a life annuity - consumers thinking that if they die early their money transfers directly to the profits of the insurance company. This is not to say that there are not inherent problems with annuity pricing for some groups of the population. Annuitants tend to live longer than the population at large, and this greater longevity is reflected in the premiums that annuity providers charge their customers. The cost of annuities may therefore be prohibitively high for groups with low life-expectancy - which, it should be noted, often correlates with lower income levels. Advice from financial intermediaries may be required to navigate around these complex products, yet these intermediaries themselves may not always understand the products sufficient to be able to provide accurate and tailored advice. In addition, information and pricing on annuities can be opaque and difficult to discern. Despite the fact that some degree of annuitization will enhance the welfare of many people, there is evidence that the annuity's provision of longevity insurance is not fully appreciated.

10. A further difficulty facing consumers purchasing annuities is a lack of understanding of the different types of annuity products and problems relating to deciding what types of risk they do or do not wish to take on. Individuals need to decide between more protection vs. higher flexibility and a chance for a higher profit. For example, only so-called fixed annuities shield the annuitant against both longevity and investment risk (level annuities paying out constant amount over the life of the annuity, with escalating

annuities paying a rising or decreasing amount). At the other end of the spectrum, TIAA-CREF<sup>4</sup> annuities pass on to the individual both investment and demographic risk (and consequently can be defined as 'DC' in character). The level of risk that an individual is willing to bear in old age – and hence the decision to buy an annuity – also depends on the extent to which other sources of retirement income are subject to risk (for example if they are already members of a large DB pension scheme, they risk 'over annuitization').

## *ii. Lack of understanding*

11. Yet, annuity products do exist which address some of the restrictions in basic annuities and could overcome some of the dislikes which consumers have for annuities – i.e. their flaws are often *perceived* rather than *real*. For example, real annuities protect against inflation, whilst impaired life and enhanced annuities address adverse selection and 'unfair pricing' by offering a enhanced return over ordinary annuities due to lower life-expectancy (from medical problems) or special characteristics (smoker, geographic, etc.). Deferred annuities allow for flexibility over the timing of the annuity purchase, whilst under the title of 'flexible annuities' a range of newer product types is appearing which seek to give control to the annuitant over payouts or how they invest their money over time. Unit-linked (or investment linked) annuities, income-withdrawal annuities, with-profit or variable annuities can allow for participation in investment returns. Some products (such as guaranteed annuities, joint annuities or withdrawal products) may allow for the inheritance of capital. Annuity contracts allowing payment of long-term care or health-care costs may address some individual's most pressing needs for liquidity. The challenge with raising the demand for annuities is, therefore, not only ensuring that suitable and attractive products are on offer, but that consumers understand them properly.

## *vi. Regulations*

12. Finally, regulators need to be aware that regulation can in itself be a barrier to demand for annuities. Notably, tax disadvantages relating to these products still exist in several OECD countries, such as adverse tax treatment vs. lump sum payouts or vs. tax breaks on other assets. Removing these tax disincentives can greatly encourage demand for annuities. For example in Germany, annuity premiums have experienced rapid growth since the tax treatment of annuitized schemes was moved to EET, whilst tax disadvantages for annuity products were removed in France and Belgium in 2004.

## **IV. Policy Suggestions**

13. The following list of policy suggestions is designed to guide discussion on the topics of longevity and annuities and provide ground for the drafting of relevant OECD good practices.

### **I. Supply Side Policy**

#### **A) Improved Data:**

*i. Improved mortality tables and forecasting:* governments could work by themselves or in partnership (with academics, consultants, insurance companies) to provide as accurate mortality data as possible. These databases take time to build, but policy makers should start compiling detailed national data bases as soon as possible. They could also support the development of more sophisticated, stochastic mortality modelling – including careful estimates for potential improvement factors - and encourage moving away from more limited, deterministic approaches.

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<sup>4</sup> Teachers Insurance and Annuity Association College Retirement Equities Fund

*ii. Differentiated data in pricing products:* mortality tables for different segments of the population are also required (and could be constructed from insurance companies' data). As with life insurance products, insurers may be permitted to put people into different risk categories, allowing for more flexible pricing, reducing adverse selection and increasing trust in the pricing of annuity products. Such segmented mortality data could be collected by governments, or alternatively a cooperative arrangement among insurers that spreads the cost amongst themselves could be used. However, policy-makers need to carefully consider which kinds of risk-categorization should be permitted, encouraged or prohibited in their own context. A situation where poor risk-categories cannot obtain annuities should be strictly avoided (for example via alternative provisioning for such groups).

*iii. Accurate inputs:* regulation may be used to ensure that pension and insurance companies are using the most up to date and accurate figures available. Attention may also be focused on the suitable training of actuaries.

### **B) Asset Liability Matching:**

*i. Long dated bonds:* an efficient market for life or long-term annuities requires a well developed government bond market with a complete maturity spectrum that is long enough to reduce the risk of unmatched distant liabilities to reasonable levels. Governments may wish to work towards ensuring an adequate supply of long-dated paper, allowing annuity providers to match their liabilities and avoid reinvestment risk. However, this should be considered within the context of the objective of government debt management agencies to issue debt within cost and risk considerations. Other long-term securities, including corporate bonds and mortgage-backed securities could also be encouraged.

*ii. Index linked paper:* the issuance of index-linked paper would allow real annuity products to be provided and adequately hedged. Private sector issuance of index-linked paper may also be considered (though private corporations may not be willing to do so as – unlike governments – they have no control over inflation or a natural hedge against it).

*iii. Longevity bonds:* regulators may wish to encourage the development of a market in longevity hedging products, such as longevity bonds. Such issuance should be permitted by private sector players, and governments may even consider issuing such bonds themselves, in order to help the private market develop by providing pricing benchmarks and liquidity. However, governments may be unwilling to undertake such issuance themselves as they are already exposed to longevity via the public pension system. An alternative is to encourage the sharing longevity risk between annuitant and provider.

*iv. Alternative products:* regulators may wish to ensure that restrictions do not unduly hamper the development of derivative products which could be used to hedge annuity related risks, or alternative products such as mortgages.

### **C) Risk Pooling:**

*i. Extreme risk pool:* where insurers retain exposure to annuity products with certain types of risk which cannot be transferred, and which are large enough to interfere with supply (such as longevity risk), mechanism for pooling such risk could be considered. For example longevity risk after a certain age could be transferred to a pool either run jointly by insurance companies on a private basis, or wholly or partially with the government on a public basis. Such a pool could theoretically be arranged internationally.

*ii. Reinsurance:* alternatively reinsurers could be encouraged to cover longevity and other annuity related risks over a certain level, potentially on a collective basis.



*iii. Group purchasing:* group rather than individual annuity purchasing could be encouraged to overcome adverse selection problems.

#### **D) Solvency**

*i. Adequate reserves:* though solvency regulation is clearly an important aspect of consumer protection, authorities may wish to take care that regulations are not so strict or formulated in such a way as to limit supply.

*ii. Accounting regulations:* likewise, attention may be focused on whether any accounting regulation impedes supply.

*iii. Product specific:* capital requirements may be prudently reduced if products with less comprehensive guarantees than conventional annuities are offered (e.g. investment linked products).

#### **E) Competition**

*i. Regulation:* regulations could be carefully crafted to encourage competition between providers - thereby encouraging product development and accurate pricing. For example transfers between providers should be allowed once an annuity has been purchased or switching between investment offerings, where appropriate according to the type of annuity. On retirement, a choice of annuity providers may be offered, (requiring comparable pricing and other product information), including alternatives to the pension plan provider.

*ii. Other providers:* regulators could allow providers other than life insurance companies to offer annuities, provided suitable solvency protection exists.

*iii. International:* cross-border products and overseas providers may also introduce competition and innovation into annuity markets.

*iv. Distribution:* regulation may be used to ensure that the distribution of annuity products is transparent, for example distinguishing between tied and independent sales forces.

*v. Other costs:* both marketing and administrative expenditure can entail problems for the small annuitant, since both entail fixed costs. Regulation may be required to prevent unsound pricing practices. However, policies to reduce or cap operation costs are more controversial and may discourage supply.

*vi. Required supply:* ultimately, to ensure supply, regulators could consider requiring insurance companies to offer, possibly with some limits, products to consumers (at reasonable market rates). Government provisioning of annuities may also be considered.

## **II. Demand Side Policy**

#### **F) Products**

*i. Innovation:* regulators may wish to adopt a flexible approach to endorsing innovative annuity products. A wide range of permissible products enables people to satisfy diverse preferences - including required levels of protection vs. need for income, as well as flexibility in timing and bequest motives. Regulators may also wish to consider allowing products with renewable rates, allowing longevity and other risks to be shared between providers and annuitants (though care needs to be taken in the calculation of rates and how these products are explained to consumers). Certain types of products may be appropriate for different

markets. Product differentiation needs to be balanced with some standardization, allowing for price and risk comparison across products.

*ii. Timing:* to offset longevity increases, regulators could promote the deferral of lifetime annuity products and offer a broader range of products for the early stages of retirement.

### **G) Financial Education and Awareness:**

*i. Consumers:* consumers need to be educated to ensure that they are aware of and understand annuity products and their benefits - including the full range of products available and the different risks they involve. Governments could take a lead in improving knowledge of annuities, whilst education may be provided by employers at the point of retirement, and sources of information and advice should be easily and affordably available at other times. Targeted rather than generic information and advice, where possible, is most efficient. Information and advice on annuities may be incorporate into financial education relating to pensions and savings as a whole.

*ii. Information:* regulators could require easily understood and comparable information on annuities products to be published, including transparent pricing. Adequate disclosure and transparent pricing mechanisms can go along way towards permitting greater compatibility between annuity products.

*iii. Financial intermediaries:* regulators may wish to ensure that financial intermediaries have adequate training to provide appropriate advice. They may also be required to ensure that clients understand the products they are purchasing.

### **F) Regulation**

*i. Tax or other incentives:* tax incentives can provide a major incentive for annuity purchases, and regulators should ensure that the taxation of annuities is at least as favourable as other options in the pension payment phase (such a lump sums). Attention may also be paid to tax policy vs. other financial products. Further incentives need to be balanced by distributional effects (given annuity products tend to redistribute wealth from poorer to richer elements of society, due to longevity differentials).

*ii. Mandatory annuitization:* some countries have increased the demand for annuities by mandating all or part of retirement income come from these products, and this is also a way of reducing adverse selection. Providing this ultimate protection against retirees running out of income in old age and falling back on state revenues, (particularly where tax or other public fiscal incentives for pension savings were provided in earlier periods), needs to be offset against the different requirements of individuals (some with other large sources of income in later years – who could face ‘over annuitization’) and the desire for flexibility which annuity surveys consistently reveal. On one hand, mandatory annuitization may be more appropriate where a well-developed annuities industry exists, with the potential for risk and product differentiation, yet on the other mandatory annuitization can be a way of increasing the sophisticated of these markets. Governments should pay attention to the retirement system as a whole to ensure that workers are properly preparing themselves for old age and that annuities provide a good compliment to other sources of retirement income.