

UK: Individuals bear the risks in defined contribution pension schemes

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The study shows that there is a 10 per cent chance that a UK pensioner will receive a [pension](#) that is only a third of their final salary.

The study gives a new assessment of the financial risks faced by

individuals who subscribe to defined contribution pension schemes, and whose pension contributions are invested in stock market securities.

Professor Ian Tonks, from the University of Bath's School of Management, and Dr Edmund Cannon from the University of Bristol, simulated the size of an individual's typical pension pot and pension pay-out at retirement, based on a four-year study of a wide range of international evidence on equity and bond returns and wage growth, in sixteen countries over a 107-year period.

They calculated that the average replacement ratio, of the likely pension income to final salary, is 0.79. This means that based on historical evidence, the typical final pension that an individual could expect to receive would be around eighty per cent of an employee's final salary.

The average pension that a pensioner in the UK might expect at retirement from regularly contributing 10 per cent of their salary over their working life has a replacement ratio close to unity which means that individuals could expect to receive a pension that matches their final salary. However, pensioners also face a 10 per cent chance of getting a pension that is only one third of their final salary.

Despite this, UK pensioners stand to fare better than their counterparts in France, Italy and Spain. Given historical returns, pensioners in these countries have about a ten per cent chance of a real replacement ratio of 0.25, 0.20 and 0.17 respectively; meaning that when they retire there is a ten per cent probability for these pensioners that their subsequent pension would be a quarter or less of their final salary.

The study is timely, as the UK is introducing auto-enrolment in October 2012 with a brand new national defined contribution pension scheme (NEST). Other countries around the world are also moving over to individual-based DC pension schemes (401k's in USA; Riester plans in

Germany, Kiwi Saver in New Zealand).

Professor Tonks said: “When a pension scheme invests in stock market investments it is tempting to believe that the risks of the scheme depend on equity market risks. We show that it is also important to allow for correlations between equity returns, bond yields and wage growth. Although the likely replacement ratio based on historical data is high, these simulations demonstrate that the risks in defined contribution pension schemes are considerable.”

Dr Cannon added: “The recent financial crisis has emphasised the need for policy makers and individuals to be aware of the risks inherent in any financial savings scheme. Defined contribution pension schemes shift pension risks away from the state and the employer towards the individual, and it is important that individuals recognise the implications of this transfer of risk”.

More information: The full paper *The Value and Risk of Defined Contribution Pension Schemes: International Evidence* is forthcoming in *Journal of Risk and Insurance* and is available online at:
people.bath.ac.uk/it237/Research...ions_Replacement.pdf

Provided by University of Bath

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