After Work—Investing for Retirement

Abstract

The first three papers are the result of work on various aspects of pension savings. The framework for analysis and common to all papers; is a life-cycle model of a borrowing-constrained individual's consumption- and portfolio-choices in the presence of uncertain labour-income. The income-process, taxes and pension systems are also realistically calibrated.

The first paper investigates some welfare effects of forced saving through a mandatory pension scheme. Pension benefits stem from both a defined-benefit and a notionally defined-contribution part, the latter indexed to stochastic aggregate labour-income. It is shown that, early in life, individuals attribute little value to their pension savings. Furthermore, for individuals in mid-life, the welfare-loss associated with the dependency between pension-returns and labour-income growth is estimated to 1.2% of annual consumption.

The second paper investigates the diversification-demand of an individual faced with the alternative, through an individual account in a mandatory-pension scheme, of exchanging aggregate labour-income risk for equity-exposure. It is shown that, depending on age and exchange-premium, individuals will be either buyers or sellers of such swaps, and that inter-generational risk-sharing can therefore be achieved.

The third paper explores the recent transition from defined benefit to defined contribution for white-collar workers in Sweden. The main result is that individuals with the characteristic of a low expected pre-retirement income relative to average income and high variance in earnings are winners (men with university degree in the private sector), and that those with the opposite characteristic (women with university degree in the public sector) are losers.

The final paper is an application of the Cox-Ingersoll-Ross model to the term-structure of Swedish treasuries. As with other studies, it was found that, when estimated from cross-section, the parameters are quite unstable. This instability stands in stark contrast to the relatively stable term-structure and implicit volatilities in traded options. The parameter instability is partially resolved by adding more information from options data.

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