- Work in Progress -

Pension Funds Managing the Funding Ratio *

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September 8, 2020

Abstract

The stability of pension funds is measured by the funding ratio which is the ratio of assets divided by the net present value of pension liabilities. To guarantee future pension liabilities are fully funded, the Swiss regulatory framework requires occupational pension funds to maintain a funding ratio of at least 100 %. The distribution of the funding ratio is heavily discontinuous at this 100 % threshold. This observation allows to conclude that most funds are able to steer their funding ratio to be successfully over 100 %.

This paper investigates various choices funds can use to favourably influence their funding ratio. We use a comprehensive data set from the Swiss Pension Fund Statistics. We apply local and global regressions to empirically describe the relationship between occupational pension funds funding ratios and their choices of the technical discount rate, the interest paid on employees' savings, as well as their asset allocation. We observe, that the closer a fully funded fund to the 100% ratio, the less generous the interest paid on savings, and the higher — and hence more favourable — the technical discount rate. This observation motivates the hypothesis that the discontinuity in the funding ratio is driven by prudent payout policy and favourable choices of technical parameters. With respect to the asset allocation we observe that the share of assets invested in equities is positively related to the funding ratio. However, funds below the 100 % threshold, compared to fully funded funds, invest a higher share in equities. This observation motivates the hypothesis of pension funds *gambling for resurrection*.

This papers findings challenge the funding ratio as a comparable and transparent measure of pension funds stability and provides evidence for non-monotonous risk choices.

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*Prepared for the Economics Lunch at the Faculty of Business and Economics, University of Basel

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