A Risk Management Tool for Long Liabilities: The Static Control Model

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Abstract[1]

This paper looks at the problem of valuing and managing the Asset/Liability Management (A/LM) risks associated with insurance liabilities that are too long to be matched by available investments. Two very different approaches to the problem are explored. The first approach called Yield Curve Extension starts with a number of simple ideas for extrapolating a yield curve and analyzes them from a risk management perspective. The paper concludes that these methods lead to unnecessarily extreme A/LM strategies. The paper then describes a second approach called the Static Control Model which allows one to use a total return vehicle as part of the A/LM strategy. The model decomposes a long liability into fixed income and total return components in a market consistent way. The fixed income component is a static hedge for the liability in the sense that it matches the first order sensitivities of the model liability as observable market information changes. The paper concludes by arguing that the Static Control Model leads to more useful A/LM strategies for long liabilities.

[1] The views and opinions expressed in this paper are those of the author and not AEGON NV.