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Natural Hedging of Life and Annuity Mortality Risks

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Abstract

The values of life insurance and annuity liabilities move in opposite directions in response to a change in the underlying mortality. Natural hedging utilizes this to stabilize aggregate liability cash flows. We find empirical evidence that suggests that annuity writing insurers who have more balanced business in life and annuity risks also tend to charge lower premiums than otherwise similar insurers. This indicates that insurers who have a natural hedge have a competitive advantage. In addition, we show how a mortality swap might be used to provide the benefits of natural hedging.

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