La gestió de les inversions financeres en les empreses d'assegurances. El risc d'inversió de les assegurances de vida amb garantia de tipus d'interès

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Abstract

Some life insurance contracts have been sold (since the Equitable Society started in 1762) at the same level of premium as long as the whole life of the policyholder. These contracts include an implicit profit (or a guaranteed interest rate) to each premium paid and sometimes also participate in the profits earned over the rate guaranteed.

This guaranteed interest rate usually is chosen according to the actual yield of fixed income securities in the local market but future changes are not well considered. Usually there is no difference in the guaranteed rate and in the level of additional profits between single premium contracts and renewal premiums contracts, this strategy forgets the additional interest risk of renewal premiums.

For many years, in the 1950s and the 1960s, the life insurers stuck to a conservative financial investment policy and the guaranteed interest rate was also very conservative (3.50%) but during the 1970s and the 1980s sharply higher interest rates, double-digit inflation and increased volatility on the financial markets forced life insurance companies to redesign their products: in order to attract business companies need to offer high yields (up to 6%) and bonuses.

In 1988 started a big crisis in the US and in 1992 the EU enforced a new rule that changed the accounting system: assets were no longer booked at acquisition value but at market value and the liabilities were valued no at guaranteed interest rate but at a more conservative rate (3,10% in 2002).

We have studied the effects of this new accounting system and we have showed that the guaranteed interest rate is not only a function of the internal yield of the assets, we consider this interest rate as a Realized Compound Yield of the whole portfolio of insurance contracts.

We want to discuss the suitability of immunization strategies because for products with renewal premiums the duration of assets will depend on the mix of the real assets and the "virtual" assets representing future premiums. For a considerable period of time the virtual assets will dominate the real; thus the duration of total assets will be dominated by the duration of virtual assets.

As a perfect immunization is no possible we offer different strategies in order to reduce the interest risk and as a consequence the investment risk managed by the life insurers when they guarantee an interest rate.