Box 16

ARE LOW RISK-FREE INTEREST RATES GOOD OR BAD FOR INSURANCE COMPANIES?

Large and increasing investment exposures to government bonds have left insurers more vulnerable to changes in long-term risk-free interest rates and their levels. However, changes in risk-free interest rates affect both the asset and the liability side of insurers' balance sheets. This box discusses the various ways in which interest rate levels and changes impact insurers, with the aim of shedding some light on whether low-risk free interst rates are good or bad for insurers.

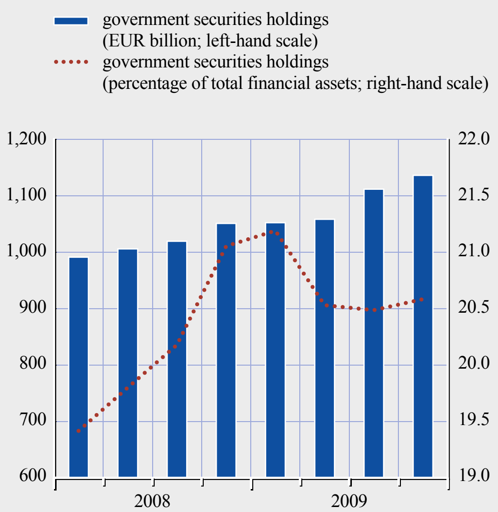
Euro area insurers and pension funds increased their investment exposures to government bonds during the financial crisis (see Chart A). These increases reflect not only valuation changes, as euro area government bond prices have been rising since mid-2008, but also outright portfolio shifts, mainly away from equities into government bonds. The share of government bonds in their total financial assets, however, has decreased somewhat in recent quarters, although exposures still remain high. In the fourth quarter of 2009, euro area insurers and pension funds had about €1.1 trillion invested in securities issued by euro area governments, which represented more than 20% of the total euro area financial assets of the sector (see Chart A).

For assets of insurers and pension funds, an increase (decrease) in government bond yields will lead to unrealised losses (gains) in the short term as the value of the securities held declines (increases). This is because large listed insurers mainly classify their bond holdings as "available for sale" and they are thus entered in the balance sheets at fair value, with any losses or gains that are recorded leading to movements in shareholders' equity. To gauge the potential impact of long-term interest rate increases, one can take ten-year average euro area government bond prices as a proxy and assume that they would fall back to their mid-2008 levels. In such a scenario, the result would be a decline of some €160 billion, or around 17%, in the market value of government bonds held by euro area insurers and pension funds. Insurers' ability to hold investments until maturity (to back their long-term liabilities) means that the key risks facing insurers from debt security exposures are not temporary losses in value – unless they are forced to sell assets due to, for example, liquidity shortages or rating downgrades of the instruments held – but defaults.

In the *longer term*, higher government bond yields are positive for insurers' investment since it allows them to invest in higher-yielding assets. A prolonged period of low interest rates is mainly a concern for life insurers and pension funds that have a large stock of guaranteed-return contracts with guaranteed rates close to or above current long-term risk-free rates (see Chart B). This risk, however, has been mitigated to some extent in recent years by some supervisors imposing lower maximum guaranteed rates. Nevertheless, the risk remains for a large proportion

Chart A Euro area insurance companies' and pension funds' holdings of government securities

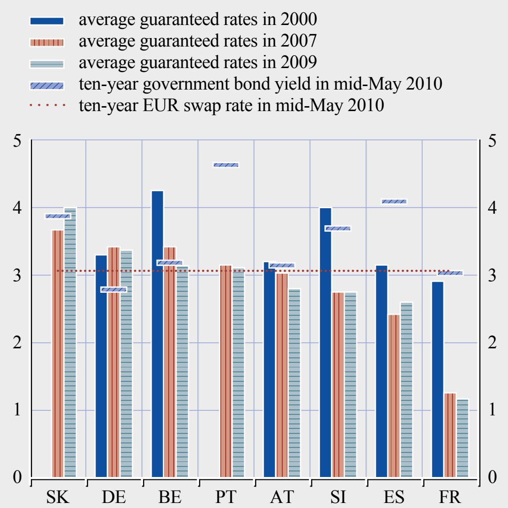
(Q1 2008 – Q4 2009)



Source: ECB.

Chart B Average guaranteed interest rates on life insurance polices, ten-year government bond yields and the EUR ten-year swap rate

(percentage)



Sources: Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) and Bloomberg.
Notes: Data for Slovakia and Portugal for 2000 are not available.

of outstanding contracts since the lower maximum guaranteed rates in most countries only apply to new contracts and average guaranteed rates therefore remain rather high in some countries (see Chart B).

Insurers have also taken actions in recent years to reduce their interest rate risks by, in particular, lowering their guaranteed rates and hedging exposures by using interest rate derivatives.

Turning to insurers' and pension funds' *liabilities*, an increase (decrease) in government bond yields has a positive (negative) effect on the value of their liabilities. This is because the use of higher bond yields to discount future liabilities reduces the net present value of the liabilities. The technical life insurance and pension fund reserves of euro area insurers and pension funds amounted to almost €4.7 trillion in the fourth quarter of 2009. This can be compared with the €1.1 trillion invested in securities issued by governments at the same time, which implies that the potential negative short-term impact of an increase in government bond yields on the asset side could be outweighed by the positive impact on the liability side.

All in all, an increase in government bond yields is generally positive for insurers and pension funds. This is because the negative shorter-term impact that rising interest rates can have on the value of holdings of government bonds is often mitigated by insurers' ability to hold investments until maturity and by a reduction of the present value of liabilities on account of higher discount rates. Nevertheless, insurers and pension funds with large exposures to interest rate risk could be faced with significant asset value declines if long-term interest rates were to rise. In addition, insurers and pension funds might be forced to sell government bonds if higher interest rates are accompanied by rating downgrades of government bonds, as insurers and pension funds are often only allowed to invest in highly rated assets.