

MILLIMAN RESEARCH REPORT

# Investment strategy under Solvency II

Executive Summary

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## Introduction and background

While the challenge of implementing Solvency II over, it may now be a suitable time for insurers to look at a range of strategic questions arising from the introduction of Solvency II. One such consideration for insurers is whether their existing investment strategies remain optimal, or even appropriate, under Solvency II.

## Current investment profiles and changes from Solvency I

Investment strategies can change for a variety of reasons. Our hypothesis is that the change from Solvency I to Solvency II is a sufficient change in the regulatory environment to have material knock on implications for investment strategy.

The key drivers of this are probably threefold:

1. **Changes in the liability valuation basis** under Solvency II, have resulted in a change to the liability profile (expected movement of the value of the liability over time). This has knock-on implications for investment strategy due to asset-liability matching (ALM) considerations. This would be more of a driver for life insurers, which typically have longer-duration business than non-life insurers.
2. **Relaxing of asset restrictions** that were in place under Solvency I (at least in some countries) but are replaced by the Prudent Person Principle under Solvency II.
3. **Capital requirements** are now different under Solvency II, with the aim of being more aligned with the level of risk taken.

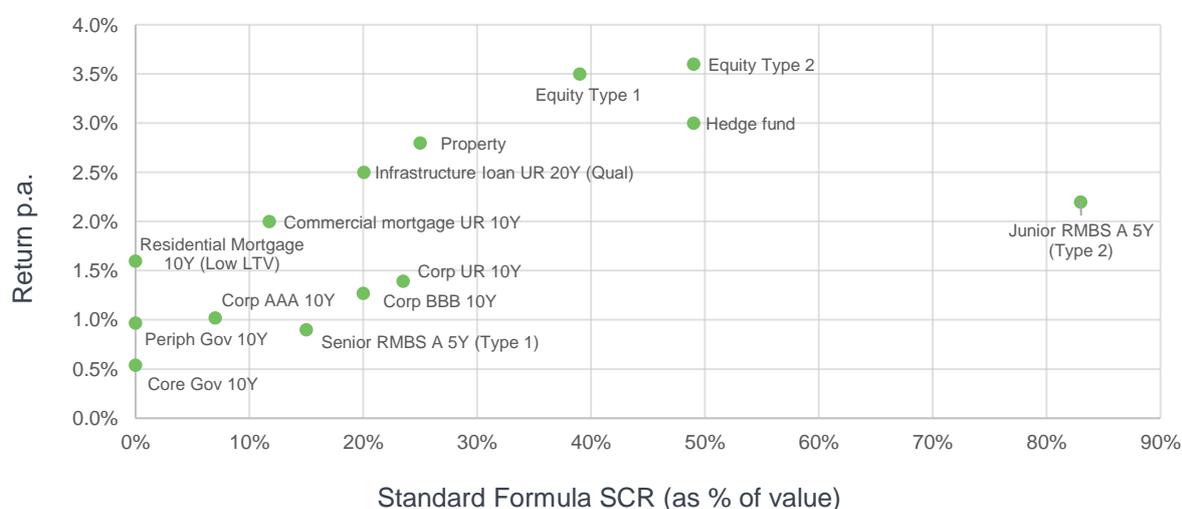
In addition to these key drivers, there are many other factors that can influence investment strategy. Market conditions have changed, risk appetite may have changed and some companies may not reference regulatory balance sheets at all in their investment strategies (though they will still need to consider the Prudent Person Principle in this case).

As a case study, we carried out an analysis of the changes made by 21 insurers in the Irish market. Overall, the changes varied considerably by company. Generally speaking, investment levels in government bonds were lower and corporate bonds higher, with those movements driven by multiple factors. Investments in equities were down on average but few companies hold meaningful levels of equity in any case. Investments in collectives were up, with the lifting of SI restrictions on investment choices likely a key factor.

## Return vs capital

One area of focus in carrying out this research was to examine the return for a range of assets compared with their Solvency II Standard Formula (SF) Solvency Capital Requirement (SCR). The chart in Figure 1 shows spread/equity/counterparty default risk capital as relevant on an undiversified basis and focuses on EUR assets.

FIGURE 1: EXPECTED RETURNS COMPARED TO STANDARD FORMULA SCR FOR A RANGE OF ASSETS



Source: Our analysis of a range of data sources including BlackRock, Bloomberg and Deutsche Bank

Figure 1 is not intended to be a rigorous scientific analysis of future expected returns or of historical risk premiums. Returns, within the broad asset classes described, can vary quite widely so the purpose of this chart is to provide a broad indication of how particular assets compare to each other when measured against the criteria of expected return and capital required.

A number of assets stand out as interesting from an insurer's point of view. In particular, residential mortgages, commercial mortgages and infrastructure loans typically have quite attractive expected returns relative to their capital requirements. These assets are discussed later in this summary paper and in more detail in the full paper.

Given that all insurers will already have an investment portfolio, it is also worth considering what the incremental capital as well as standalone capital for particular assets would be. In some cases, this could materially change the assessment of the impact of any change in strategy.

## Capital vs risk

It is important to remember too that SF capital is not necessarily a good proxy for risk in all cases. There can be some assets for which the SF gives an SCR that is disproportionately high relative to the risk of that asset. This is likely the case with some Type 2 securitisations, which have very high SF SCRs, as shown in Figure 1. On the other hand, the SF may give an SCR that understates the risk associated with other assets. This may be the case with government bonds, particularly lower-rated ones, and residential mortgages with low loan-to-value (LTV) ratios. In both cases, these assets may have an SCR of zero but clearly cannot be regarded as risk-free.

A key insight is to understand the assets for which the SF overstates the capital requirement relative to risk and either to use risk mitigation techniques (discussed in more detail in the full paper) to reduce the SCR without giving up too much yield, or to avoid those assets altogether. Where the SF SCR understates risk, insurers will need to assess any extra expected return in the context of risk appetite, any additional capital they may wish to hold through the Pillar II processes, and in the context of their applications of the Prudent Person Principle.

## Alternative assets

There is a wide universe of assets available to insurers outside of traditional assets. We have considered the benefits of a selection of non-traditional assets in the paper, as well as the challenges.

Two of the most interesting assets from an insurer's point of view are infrastructure debt and mortgages. These assets are likely to have attractive returns compared to bonds and have relatively attractive SF capital requirements compared to corporate bonds of similar durations. They also offer stable, long-term cashflows – particularly in the case of infrastructure investments. They could, therefore, potentially be a good match to an insurer's liabilities. They may also be a good diversifier in a portfolio in terms of the risk within that portfolio.

On the other hand, they are clearly more difficult to source than traditional investments and in some cases may be more complex to manage. These investments can often be illiquid, although this may be less of a concern for many insurers with long-term liabilities.

## Should we think about the matching adjustment?

For insurers writing annuity liabilities, the matching adjustment (MA) is a potentially valuable way to use higher-yielding assets to generate higher discount rates, as long as the spreads are sufficient to justify the extra overhead involved. However, the MA is not being used by any Eurozone insurers to date, aside from some companies in Spain due to particular features of the Spanish market. The MA is used by 23 UK insurers.

Our analysis showed that, for UK annuity liabilities, the matching adjustment that could be achieved was higher than for euro annuity liabilities, for two main reasons:

- Higher spreads on UK corporate bonds
- Later last liquid point (and hence the convergence to the ultimate forward rate commences earlier)

The ultimate forward rate for the euro will come down over the coming years (this process has started) and this may make the matching adjustment more attractive to Eurozone insurers.

The full paper is available here: [Full Report](#)



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