

Solvency II & Absolute Return Investing



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Introduction

Solvency II came into force on 1 January 2016 and its Pillar I relates to the amount of capital required to be held by insurance firms to reduce insolvency risk and boost consumer protection. The Directive introduced a principle-based, risk-sensitive regulatory system for assessing solvency capital needs, and ensures better alignment of risk and capital in the insurance industry.

One feature of particular note is its look-through principle, which moves on from previous approximations for calculating the solvency capital that should back collective investment vehicles, allowing detailed analysis of the actual individual investments held by a fund and their true risk characteristics. In this paper, we examine the important implications this has for the calculation of solvency capital needs. We highlight, through the results of our detailed

proprietary analysis, how the Directive changes the way insurers can view various asset classes. We also demonstrate how insurers might be able to generate more efficient capital consumption, particularly when applying the approach to absolute return strategies.

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Insurance Solutions Team

The insurance sector is very important to Aberdeen Standard Investments. We manage insurance assets worth £307 billion (as at 31 December 2017), including the assets of parent company Standard Life Aberdeen. We also manage assets for a wide range of insurance clients across the UK, US, Europe and Asia.

Our dedicated Insurance Solutions Team manages relationships with both our internal and external insurance clients with a view to developing innovative solutions that enhance their risk-return profile. The team comprises three highly experienced insurance actuaries with detailed knowledge of regulation, risk and actuarial matters, and provide clients with extensive guidance and industry insight. Alongside the detailed modelling work undertaken for this paper, the team has developed a range of other capabilities to serve insurance asset management clients' needs in a Solvency II world.

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Solvency II and its implications for absolute return investing

Solvency II's principle-based, risk-sensitive characteristics enables insurers to obtain capital relief for more efficient risk-taking.

The Directive's look-through principle provides insurers with exactly that capability in their asset fund holdings, and is a development with important implications for future asset allocation practice. The principle also means that far greater analytical rigour is required when assessing risk and solvency capital requirements. Ultimately, look-through ensures better alignment of capital management with actual risk adopted and greater capital allocation efficiency.

At Aberdeen Standard Investments, we believe the principles argue for a greater role for absolute return funds in insurers' portfolios. The strategy's true risk diversification characteristics were largely unrewarded by previous risk capital rules. However, Solvency II facilitates more realistic recognition of risk diversification within absolute return funds, as well as between those funds and other investments.

Where they have been constructed using effective diversification techniques, absolute return funds can achieve their returns with lower risk than the asset classes in which insurers typically invest. In addition, absolute return products can generate returns that enhance diversification when combined with those asset classes, reducing overall asset portfolio risk still further.

Consequently, absolute return vehicles can be highly capital-efficient alternatives, offering insurers an opportunity to improve the trade-off between expected returns and solvency capital requirements.

Absolute return investing – an overview

At their simplest, absolute return strategies seek to generate attractive returns whatever the market environment. They therefore differ from the relative return approach of many traditional mutual funds, which seek to outperform benchmarks or peer groups.

In doing so, they typically adopt a multi-asset approach, seeking to exploit the profit potential of a variety of different instruments, including bonds, equities, derivatives, swaps, options, futures and commodities. This is done through the use of numerous different techniques, including short-selling, leverage and arbitrage, while risk management is also a critical part of the process.

The attributes of absolute return funds and their inherent flexibility, which we summarise below, ultimately mean they can be used as part of an overall investment solution to generate better risk-adjusted returns over the long term.

Unconstrained by index benchmarks

Absolute return multi-asset funds are invariably constructed without reference to benchmark indices, unlocking a far larger and more diverse pool of opportunities than is available to traditional funds. Importantly, it leaves the manager free to implement his/her best investment ideas with maximum conviction in order to meet investor requirements.

As well as the more familiar asset classes – equities, bonds and real estate – absolute return vehicles can facilitate the use of more specific strategies. For instance, profits can be sought from the manager's views on interest rate movements, currency exchange rates and inflation expectations among others.

Risk-based portfolio management, construction and control

The extent and diversity of the absolute return investment universe significantly enhances the scope to manage risk. Managers can select a wide range of positions to construct portfolios of complementary strategies, with no individual risk or group of related exposures dominating. At Aberdeen Standard Investments, our absolute return funds are constructed to generate exposure to a wide array of diversified investment themes while managing risk within defined tolerances.

Longer-term investment horizon

Short-term market behaviour can be very unpredictable, a feature attributable to the short investment timeframes of many participants. As a consequence, markets often deviate from their established long-term norms, especially during turbulent conditions.

This can be a particularly fertile hunting ground for multi-asset managers seeking to identify and exploit such anomalies over the long term. The greater resilience of this type of multi-asset approach can allow the manager to ride out periodic market storms and concentrate on longer-term opportunities unavailable to conventional portfolios.

A multi-asset approach can have the following advantages:

- unconstrained by index benchmarks, unlocking a far larger and more diverse pool of return opportunities
- takes advantage of strategies outside normal market exposure, to seek enhanced returns
- ability to withstand short-term storms, to focus on long-term opportunities and
- genuine diversification of risk, aimed at providing a more predictable investment journey.

Quantifying the impact

At Aberdeen Standard Investments, we believe that Solvency II's look-through principle and the greater granularity it allows in terms of incorporating actual portfolio risk attributes into solvency capital assessments could mean more appropriate treatment of absolute returns funds than has previously been the case.

This will require much greater rigour and more detailed analysis when assessing the true underlying risk of the assets held in future but, in turn, makes these vehicles a potentially attractive additional strategy to complement other options in insurers' asset portfolios.

To test this view and to quantify the potential benefits for insurers, we have conducted our own detailed studies of the Directive's impact on solvency capital when introducing absolute return funds into the investment mix. In order to do so, we have worked closely with both MSCI RiskMetrics and Moody's Analytics to develop our Solvency II modelling capability.

RiskMetrics software has been used to calculate the Standard Formula Solvency Capital Requirement (SCR) for a range of our funds using the full line-by-line look-through approach. Moody's Analytics has also reviewed the RiskMetrics Standard Formula module and its application to Standard Life Investments funds.

Using this capability, we have conducted detailed analysis of the risk-return effects of introducing absolute return vehicles under the Solvency II regime. For illustrative purposes, we use the examples of the Standard Life Investments Global Absolute Return Strategies (GARS) and Absolute Return Global Bond Strategies (ARGBS) funds.

Standard Formula look-through case studies

We consider the Solvency II SCR treatment of two Standard Life Investments absolute return vehicles, GARS and ARGBS, on a standalone basis. These results have been produced on a full look-through basis for each fund as at end-December 2017. Chart 1 shows the Standard Formula SCR for the GARS fund.

The analysis shows the Standard Formula SCR is estimated at 24%. The GARS fund has a performance objective of cash +500 basis points (bps), which is comparable to the long-term historical average return of major equity markets. Under the Solvency II Standard Formula, a typical equity fund would generate an SCR of 39-49% (before symmetric adjustment), and similar results would be expected from an Internal Model. GARS therefore provides a much more capital-efficient route to this level of expected returns. Look-through allows the efficient portfolio risk construction techniques of GARS to be recognised.

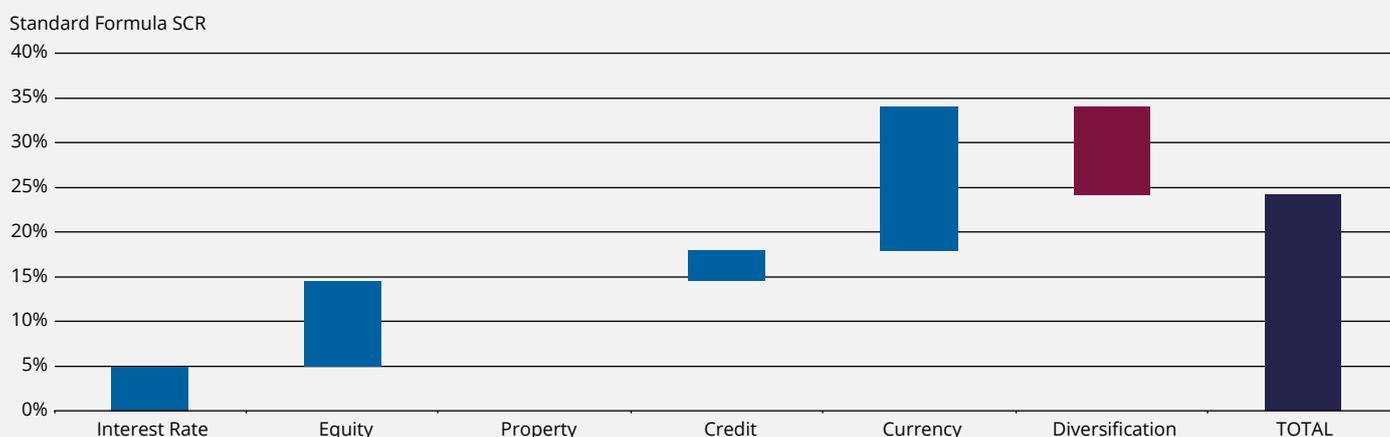
The currency risk charge in Chart 1 is particularly notable. This arises because the Standard Formula assumes that all currency exposures move against the fund at the same time – that is, no diversification benefit between currency risk exposures is permitted under the Standard Formula. When the strategy involves taking a number of different directional currency exposures, this assumption is highly prudent.

For ARGBS, our modelling estimates the Standard Formula SCR at 17%. The Standard Formula currency risk charge is similarly notable in the ARGBS case for the same reason as discussed above. With a

performance objective of cash +300 bps, ARGBS can offer an alternative, potentially capital-efficient approach to yield enhancement to moving down the credit spectrum into high yield credit.

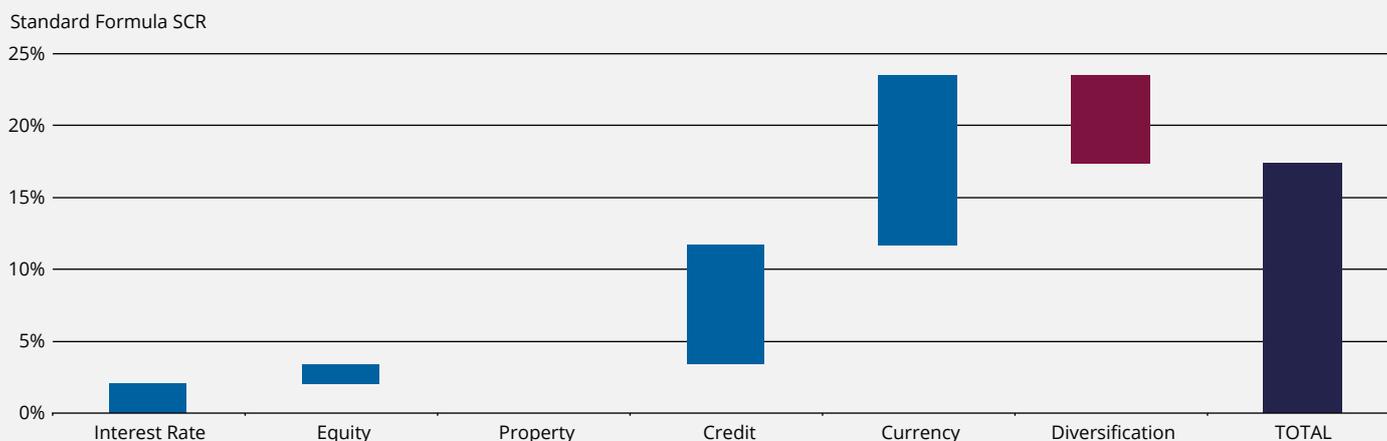
Finally, it should be borne in mind that the above analysis considers the SCRs of these funds on a stand-alone basis. When these strategies are mixed with traditional 'beta' strategies such as equity and credit holdings, further economic and Solvency II diversification benefit will be realised between these asset classes and the absolute return strategies.

Chart 1: GARS asset-only Solvency II treatment – Standard Formula SCR



Source: Standard Life Investments, 31 December 2017

Chart 2: ARGBS asset-only Solvency II treatment – Standard Formula SCR



Source: Standard Life Investments, 31 December 2017

Conclusion

Judging by our analysis of two funds in Aberdeen Standard Investments' absolute return range, it appears that absolute return portfolios can obtain highly attractive capital treatment under Solvency II's look-through requirements. In essence, the look-through principle allows the risk-efficient portfolio construction methods of these funds to be recognised.

- The Standard Life Investments GARS Fund generates a Solvency Capital Requirement of some 25%, less than two-thirds the solvency capital requirement of equities, while seeking a return that is similar to the long-term historical average equity market return. This analysis suggests that such a fund could be an attractive equity alternative from a Solvency II capital treatment perspective.
- The Standard Life Investments ARGBS Fund generates a Solvency Capital Requirement of roughly 15% - 20%, less than the typical capital requirements of a high-yield bond fund with a similar expected return target. The results of our analysis suggest that a type of fund such as ARGBS could offer an attractive alternative yield-enhancement approach to the short-duration investment-grade corporate bond portfolios typically held by general insurers.

It is also worth noting that, where return correlations between different absolute return funds are low, the capital-efficient yield can be improved further still by investing in a package of these funds.

Finally, it should be noted that these results are obtained by fully applying the look-through approach to funds that invest in a broad range of financial instruments. This has implications for asset data requirements and, particularly in the case of Internal Models, for insurers' capital modelling requirements. Aberdeen Standard Investments can deliver the asset data required to facilitate insurers' full look-through SCR analysis of these funds. Our Insurance Solutions Team can also provide expertise on the modelling of the underlying financial instruments in firms' capital models.

Glossary of key terms

Internal Model	The risk management system of an insurer for the analysis of the overall risk situation of the insurance undertaking, to quantify risks and/or to determine the capital requirement on the basis of the company-specific risk profile. Within the Solvency II framework an Internal Model is intended to fully or partially replace the Standard for the calculation of the Solvency Capital Requirement (SCR). Both quantitative and qualitative requirements will be set by the regulator and explicit approval has to be granted by the supervisor.
Look-through principle	Through the use of actual market data for the investments and assets held, insurers can more precisely calculate the true risk profile of the underlying investments rather than rely on prior, more approximate methodologies.
Pillar 1 (Solvency II)	The area of Solvency II concerned with the calculation of regulatory capital and defining the financial resources that a company must hold to be considered adequately capitalised and solvent. It sets out how an insurer should assess and value assets, and calculate solvency capital. Companies can use either the Standard Formula or an Internal Model approach, although the latter will be subject to stringent standards and require prior supervisory approval. There are three pillars to Solvency II: Pillar 2 focuses on an insurer's governance and risk management, while Pillar 3 covers disclosure requirements (both publicly to investors and analysts, and privately to supervisors).
Solvency Capital Requirement (SCR)	The amount of capital to be held by an insurer to meet the Pillar I requirements under the Solvency II regime. It is intended to represent the 99.5th percentile of the 1-year change in the net assets of the market-consistent balance sheet. The SCR may be assessed using either an approved Internal Model or the Standard Formula.
Standard Formula	In the context of the Solvency II regime, a risk-based mathematical formula prescribed by the regulator for generating insurers' SCR under Solvency II.
Symmetric Adjustment	Insurance and reinsurance undertakings using the Standard Formula have to hold a certain amount of regulatory capital to compensate for losses in the value of equities in case of an adverse scenario. The capital requirement is calculated as a percentage of the market value of the exposures to equity risk. The percentage has been calibrated 'through the cycle', i.e. considering all parts of the economic cycle. In order to prevent pro-cyclical behaviour ('fire sales') of equities exposures, the capital charge calibrated 'through the cycle' is corrected with an adjustment. The adjustment behaves symmetrically. It is expected to be positive (i.e. the capital requirement is higher than the average) when markets have risen recently, and negative (i.e. the capital requirement is lower than the average) when equity markets have dropped in the previous months.

Sources: CEA Insurers of Europe Solvency II Glossary

Lloyd's, www.lloyds.com

'Solvency II - A closer look at the evolving process transforming the global insurance industry,' KPMG

European Insurance & Occupational Pensions Authority, www.eiopa.europa.eu

International Risk Management Institute, www.irmi.com

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