NATIXIS ASSET MANAGEMENT

IDEAS *FIXED INCOME*
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*Intended for professional clients*

# Consequences of SII on managing fixed income portfolios

- **Solvency II is a challenge in terms of systems and data**
- **Product ranges and investment processes have to be adapted to the new regulatory environment**
- **In particular, asset managers will need to prove that they are proactive by:**
  - **Reviewing mandates so that they work more closely with their insurance clients**
  - **Proposing a broader range of expertise and asset classes to clients**

New prudential regulations for European insurance companies entered into force on 1 January 2016. These regulations will have an impact well beyond the insurance industry, most notably in asset management. The regulatory framework relies on three pillars which may have direct and indirect consequences for asset managers. The first pillar determines the quantitative solvency requirement: Available Financial Resources (AFR) have to exceed the Solvency Capital Requirement (SCR). This will have an impact on strategic asset allocation. The third pillar sets out the requirements in terms of information and reporting. This will impact procedures for data delivery (quality, traceability) on asset holdings. Lastly, the second pillar, "governance and control", has a direct impact on the relationship between clients (insurers) and suppliers (asset managers). The ORSA requirement (a report explaining the Own Risk and Solvency Assessment policy) means that asset allocation and its dynamic evolution have to be carefully followed.

Whilst insurance companies still require support from asset managers for data and reporting in particular, the industry has already started to develop new ideas for asset allocation.

## New data needs

As for reporting, the new regulations set high standards. Classic inventories of portfolios are no longer sufficient and need to be expanded so that the insurer can:

- identify broad exposures to different markets and issuers at the most granular level available; and
- accurately calculate the amount of capital required to cover market risk: the $SCR_{mkt}$, one of the sub-modules of the capital requirement calculation.

The asset management industry is up to the challenge. Industry representatives in France (AFG, Club Ampère), Germany (BVI) and Great Britain (IMA) have published a detailed inventory template[1] (including 130 data per asset) which should standardise the presentation of information to insurance companies. The new format "Solvency-II-TPT (TriPartite Template)-Version-3" has been endorsed by a number of national associations (in Italy, Luxembourg, Austria and the Netherlands) and EFAMA[2].

The enhanced reporting requirements are now being included in mandates, with a flow-on effect on funds dedicated to clients impacted by the new regulations. Relevant changes in back office information systems have now largely been implemented. However, the actual management of portfolios is also directly impacted. The cost of capital must now be integrated into investment processes, but this should not replace other inputs nor change return expectations, risk calculations or investment views. This reform can be seen as an opportunity for asset managers to deepen client knowledge, ask for feedback from clients to improve decision making and transform Solvency II into a new investment framework which will facilitate both communication and investment decisions.

[1] See the IMA's website: http://www.theinvestmentassociation.org/investment-industry-information/current-initiatives/solvency-ii.html
[2] European Fund and Asset Management Association

For the moment, implementing the three pillars of the reform has been the main focus of insurance companies. Reflections about strategic asset allocation have taken a back seat, but are again becoming central. Asset managers need to anticipate this change.

### Evolution of strategic asset allocation and mandates

Under Solvency II, the asset allocation of an insurance company depends on the structure of its liabilities and available capital and, more generally, its cost of capital. Insurers will need fixed income assets with long durations in order to minimise the capital cost of interest rate risk ($SCR_{IR}$) of long-term liabilities. For shorter-term liabilities, assets with long durations are less vital. Depending on their SCR, insurers will be more or less free to invest in the most capital-intensive assets. This means that organisations that are subject to Solvency II must have a detailed understanding of their assets and liabilities. They also have to know both their marginal cost of capital (the interest rate at which it can borrow) and their global cost of capital (WACC: Weighted Average Cost of Capital). Lastly, as required by pillar II of the regulations, it must define its risk appetite. The possibilities in terms of asset allocation will depend on these three parameters. For asset managers, this means that strategic allocations will become more refined and more dynamic. Asset managers must help insurers to refine their decision-making processes, taking into account their expected investment returns dictated by their needs in terms of assets and liabilities, their profitability targets and their risk limits (appetite and regulation) by making proposals as regards asset allocation, hedging strategies, forecasting of asset returns… As a result, Solvency II will reinforce the relationship between asset managers and insurance companies. Asset managers will be expected to help their clients to cope with the regulatory requirements and to propose investment solutions.

In particular, in periods of low interest rates the attractiveness of new asset classes with relatively higher spreads, such as private loans and infrastructure debt, increases. These asset classes require large research capabilities to source investment opportunities and to price and evaluate the risk of asset holdings. Large insurance companies have the capacity to engage in these markets directly, but this is not the case for all investors. Asset managers therefore have a card to play in assisting insurance companies as they develop their knowledge of new assets.

The closer cooperation between asset managers and insurance companies can go as far as helping with the design of the insurer's internal models. Asset managers' experience of modelling and valuing financial instruments can be very valuable in designing the part of the model that relates to assets.

In order to reinforce this relationship, asset managers will need to review their funds and mandates in order to define their clients' requirements in terms of data (quality, delay, traceability) and investment management: the precise definition of objectives, constraints, limits, SCR budgets by asset class, room to manoeuver, hedging policies and in some cases mandates to protect SCR/AFR ratios should simple modelling be available to track a proxy for this ratio.

### Impact on investment processes

Asset management processes need to evolve in a number of directions in order adapt to this new environment. In advance, by taking into account client information: new asset/liability targets including matching assets to liability flows (in order to minimize $SCR_{interest\ rate}$), SCR budgets by module and definitions by ratio/duration on credit. Managers of insurance company assets are now expected to be able to calculate the impact under the standard formula, ex post and ex ante, on the SCR of an investment decision.

Then, portfolio construction must take into account the need/cost of capital dimension in the classical expected return/risk optimization framework. Each strategy to be implemented in the portfolio must be studied in a classic manner as a function of expected return (or cost for hedging strategies), of incremental risk to the portfolio (added or reduced) and capital consumed (or freed by hedging).

- **Impact on Asset Allocation**

The standard formula innately encourages asset reallocation. The most favoured asset class is clearly sovereign bonds: they are not taken into account in the $SCR_{Spread}$ (solvency capital requirement for spread risk). The $SCR_{Spread}$ is the same for each Euro country and maturity. However, the second pillar limits the possibility of abusing this arbitrage by investing heavily in poorly rated countries.

But beyond the particularly favourable calculation for sovereign bonds, it is likely that there will be further evolutions in asset allocation. $SCR_{Spread}$ is calculated as an increasing function of the modified duration of the bonds. Thus, a natural trend will be reinforced: the barbell position between short term corporate bonds to benefit from the spread without being overly penalized by the corresponding SCR thanks to their short duration, and long sovereign bonds which help to keep the overall fixed income duration in line with liabilities.

To take another example, the treatment of infrastructure debt was improved on 1 April[3]. Its SCR will be considerably lower than standard debt of the same maturity. Liquidity, availability and once again Pillar II will limit the weight of this asset class in the strategic allocation.

[3] Commission Delegated Regulation (EU) 2016/467

Collateralization is also reinforced by the directive: the SCR for real asset debt (real estate and infrastructure) will be lower if they are collateralized. The $SCR_{Spread}$ for a real estate debt can be reduced by as much as half if the value of collateral is high enough compared to the value of the loan.

Another important impact of regulation relates to hedges. For a hedge to be fully taken into account, the hedging strategy's maturity must be greater than a year. This means that the implementation of hedging programs aimed at minimizing capital needs should reflect long-term objectives. If one-off year-end hedging might make sense to protect yearly accounting results, it makes no sense in terms of Solvency II. Furthermore, any such strategy needs to be determined with the insurance company and must be precisely documented in the ORSA.

- **attractiveness of asset classes relative to the cost of capital**

A number of indicators exist to help us analyse in more detail the relative attractiveness of different asset classes.

In the fixed income universe, we can define indicators based on market data corrected by the contingent need for required capital (SCR) plus the cost of such capital (here RoE) in order to obtain the return on an asset, adjusted for capital and/or the cost of capital.

If $Y_i$ is the market yield on asset i, we define:

$Y_{i,SCR}$: market yield on asset i adjusted for SCR,

$$Y_{i,SCR} = \frac{Y_i}{1+SCR_i}$$

$Y_{i,adj}$: return on an asset adjusted for cost/capital

$$Y_{i,adj} = \frac{Y_i}{1+SCR_i} - SCR_i * ROE$$

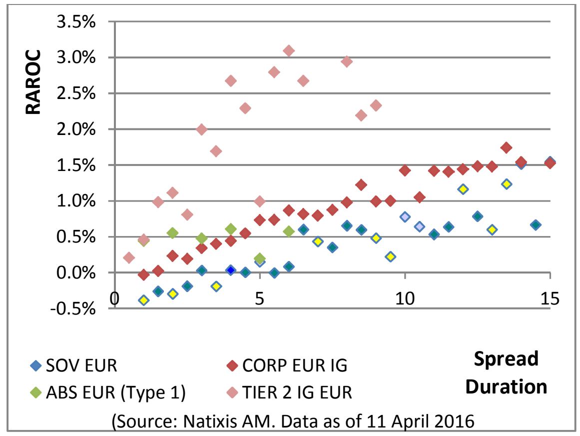
We can then compare the adjusted return on assets given their ratings and credit risk. This indicator captures the attractiveness of an asset class: insurers with a lower cost of capital may arbitrate more freely in favour of credit.

We can also use a more generic indicator like the RAROC (Risk Adjusted Return on Capital), an indicator usually used by the banks. An approximate form of this indicator is given by:

$$R = \left[\frac{(1+y)^T + S}{1+S}\right]^{\frac{1}{T}} - 1$$

This formula basically states that the capitalized income of the bond at maturity, i.e. $(1+y)^T$, and the capital add-on S, are considered as the outcome of an investment at cost 1+S, for a maturity T.

This indicator allows us to compare different asset classes. On the chart below, we have compared the RAROC for different bonds and securitisations as a function of their credit duration.




**RAROC for a sample of bonds and securitization, as a function of spread duration (Source: Natixis AM. Data as of 11 April 2016)**

The universe of securities used as a comparison can be enlarged to include foreign currency securities:

- used to hedge liabilities in foreign currencies, in which case there is no capital cost ($SCR_{FX}$) for the currency risk; or
- used to boost return, in which case the return on the security is corrected by the exact cost of the hedge (cross-currency swap).

### Impact on investment processes

Over and above the consequences in terms of communication and the management of investment mandates discussed above, adjustments may need to be made to the product range intended for insurance clients. We highlight some of these consequences below.

- **Make inventories simpler!**

As discussed above, inventories must be transparent and detailed so that insurance companies can do the relevant calculations. This heavily penalises funds of funds where inventories at the most granular level are difficult to handle (number of lines), complex to manage (retrieving data, different valuation methods from different providers…) and more expensive (data costs, time of treatment, capital…). Products aimed at entities under Solvency II must prioritize transparency and direct holdings. A simple example of such an adaptation: money market funds frequently use other money market funds to manage their cash position. Direct line investing can significantly reduce the size of inventory reports.

- **Multi assets and flexible?**

For these products, the inventory snapshot is not representative of underlying risk. If a fund has a strategy that allows duration to vary between 0 and 10, a snapshot showing unit duration is likely to understate the risk of the product. One should use inventory data to ensure that SCR calculations reflect regulatory assumptions based on a $VaR_{99.5\%}^{1year}$. These products will be disadvantaged unless they explicitly protect the net asset value.

Another direct consequence in terms of product range, investors prefer stable funds which are easy to understand such as sovereign debt funds divided into duration buckets instead of all-maturity flexible funds. For access purely to credit, credit funds hedged for rate duration risk would be well-adapted.

## Conclusion

**Reform of the prudential insurance framework was first treated as an administrative burden. Data requirements (quantity, quality, traceability) are significant. However, now that the administrative costs and changes to information systems have to a large extent been absorbed, asset managers are expected to proactively reinforce their relationships with their insurance clients by revisiting mandate guidelines, offering new modelling capabilities, facilitating access to new, preferably liquid, asset classes, and redesigning product ranges to make them simpler and more transparent.**

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