



# Solvency II

A briefing for the Chief Investment Officer  
**Executive summary**

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Institutional Investment Advisors Limited

**J.P.Morgan**  
Asset Management



# Solvency II

## A briefing for the Chief Investment Officer

Solvency II is the new EU wide regulatory framework for the insurance and reinsurance industry.

1. It is the most wide ranging regulatory reform that most of those who work in the industry have ever experienced.
2. It is not just about regulation: its aims and impact go to the heart of how an insurance business is managed, in every function – including investment.
3. It will be in force by 1 January 2013: given the work required, that's not far away.

This paper looks at Solvency II from the point of view of the Chief Investment Officer and those that manage the assets of UK insurance companies.

The devil is in the detail. Although UK regulation under the FSA has already moved some way towards Solvency II, much will change.

The EU Directive establishing Solvency II does not include all the detailed rules, but it is this detail that can have a significant impact on firms' investment behaviour. The rules are not yet final, but the latest EU proposals are being tested in the second half of 2010 in a wide scale fifth Quantitative Impact Study (QIS 5) involving individual firms. This paper is an introductory overview of the QIS 5 technical specifications most relevant to the CIO.

### Solvency II

- Matters to the investment department: it cannot be left with risk and actuarial functions.
- Changes how value, capital and risk must be measured and managed in insurance.
- Strengthens the requirement to focus on risk adjusted return on capital.
- Moves regulation away from mere 'tick-box' compliance with rules and directives and towards much greater scrutiny of business models and strategies.
- Will involve greater disclosure to regulators and the public of how business is conducted and risk managed in every function of the firm.

In firms with a strong capital position, the investment department will have much greater scope for adding risk adjusted value. In firms with a weak capital position, investment departments will need help. External managers will need to become highly attuned to the demands imposed on the CIO by the new world of Solvency II.

# Asset allocation impact for UK insurers




Solvency II changes the way that regulatory capital is calculated and projected insurance liability payments are discounted. Both aspects will have an impact on asset allocation.

Firms may use an approved Internal Model to calculate their capital requirement instead of the Standard Solvency Capital Requirement (SCR) calculation.


But the discounting method for liability valuation will be the same for every firm in the EU.

Under the proposals for implementation being tested in 2010, we would expect to see:

## Changes driven by Solvency II capital calculation

Gilts	<u>Less use of gilts at low duration, more at higher duration</u> where they yield more than swaps
Bonds that are currently "Approved" bonds or bear no capital charge	<u>EEA/OECD preferred. Less use of sovereign and sovereign guaranteed bonds in non-domestic currency:</u> e.g. less KfW in sterling. Solvency II uses different and narrower definitions for exemption from capital charges compared to current FSA rules.
Credit	<u>More credit exposure at the shorter end</u> where risk adjusted return is higher, less at the longer end. Solvency II removes the current disincentive for life insurers to make this change.
Structured Credit, ABS etc 	<u>Significantly curtailed use of structured credit except for some AAA issues,</u> due to a major fault in the way that the Standard calculation is specified. It catches a large part of the current long end of fixed rate bonds and the huge prime RMBS market (the second largest UK bond market after Gilts, largely floating and, therefore, otherwise highly suitable under a swaps based liability benchmark).
Property 	<u>Lower allocation to property as a result of higher capital charges,</u> with no index based dampener. Issues with the treatment of property backed structures (e.g. if used to generate index linked flows, these may be caught as structured credit).
Equity 	<u>Lower equity allocation due to higher base charges</u> that vary under a "symmetric adjustment" to levels very much higher than currently applied. <u>EEA/OECD listed that count as "Global" equity will be much preferred.</u> Much higher charges will make the "Other" equity category unattractive.

(as specified for the Fifth Quantitative Impact Study (QIS 5) involving insurers throughout the EU in Q3/Q4 of 2010).  
These will change if that specification changes (and in some cases we believe it should).

Other, including: Hedge Funds Private Equity Commodity "Infrastructure" 	<u>Lower allocations to these classes.</u> (They are not well defined by QIS5). Unless they are sufficiently transparent for underlying investments to be parsed into the other risk modules (such as Global equity, property or spread (credit) risk), they are subject to very high "Other Equity" charges.
Total Return	<u>Investment mandates to become less constrained, with wider use of total return.</u> This results from (1) the greater use of swaps that will effectively require investments to "beat cash" plus the illiquidity premium and (2) the absence of explicit charges or margins for forced sale / reinvestment risk.
Segregated Mandates	<u>Attraction of segregated mandates increases,</u> especially if the client firm uses an internal model, due to the "look-through" requirements.
Collective Investment Funds	<u>Transparent funds preferred to those that are not.</u> Requirement to apply a look through approach will raise a "hassle" factor barrier that fund managers will have to address to retain insurance investors.

### Changes driven by Solvency II Valuation Discount Curve

Swaps	<u>Greater use of swaps with insurers as fixed receivers Vs LIBOR,</u> because the valuation interest rate curve for discounting liabilities is based on the swap curve.
Generic Credit	<u>CIOs will need to deal with some complex issues for benchmark setting or asset allocation that arise from the use of an illiquidity premium.</u> For many firms, this will be a new concept: the valuation discount curve incorporates, for all firms, an illiquidity premium (LP) based on a corporate bond index. 50% of the LP applies to the discounting of all liabilities except: (1) with-profits - 75% LP and (2) annuities - 100% LP. All firms must use the same LP: it cannot be modified with internal models.

### "Look through" and Transparency

Crucial to the analysis of risk required by Solvency II is the "look through" approach. All investments, including collective investment funds, non-segregated mandates and "structured credit" must be assessed under a "look through" approach, lifting the data elements required for each market risk module from the underlying holdings. The additional data and information requirements to do this are not trivial. Where it may not be done, a potentially punitive treatment as "Other Equity" applies.

 flags represent asset classes where Internal Models could make a big difference.

# Solvency II

## One framework among many

Asset allocation and the choice of individual investments in insurance companies are currently driven by a number of conceptual frameworks, of which the regulatory framework is only one. Others include financial reporting under IFRS and EEV/MCEV, credit rating agency criteria and internal strategic frameworks such as Enterprise Risk Management. These conceptual frameworks take different approaches to the valuation of assets and liabilities. They produce different results for the amount of the asset/liability difference - the "buffer fund" that represents capital - that exists at any one time or is required as a minimum.

We expect the regulatory framework under Solvency II to become much more important, even if it does not become dominant. Accordingly, the foregoing table brings together our overall conclusions on the direction in which Solvency II will push asset allocation.

### Investment Behaviour

Solvency II is widely expected to change insurers' investment behaviour. We see this as happening for four reasons:

- It is expected to require increased regulatory capital.
- It changes elements of the liability benchmark.
- It changes the way in which risk is treated between risk categories and between and within asset classes.
- Inadequately specified QIS 5 proposals may remain unchanged before implementation.

### Key Themes for the CIO

- The Investment function will be scrutinised as part of the whole firm.
- Risky investment will no longer be able to ride to the rescue of unprofitable underwriting.
- Investment decisions need to take account of return after risk and the capital cost of risk.
- Risk is considered for the whole balance sheet under a "delta NAV" approach, but most of the burden for reducing asset-liability mismatches will fall on the investment function.
- The Standard SCR proposed in the QIS 5 specifications needs a good look: some of it needs to change.
- Inadequate information on investments, or their transparency, will lead to higher capital charges.
- Internal Models are the escape route from the "One size fits all" Standard SCR.
- Solvency II is a business priority: lack of CIO focus now will result in future effort being diverted away from investment towards data provision, at the security level, for the Chief Risk Officer.

## Where will the impact fall?

All the assets of general insurers are potentially affected by the issues covered by this paper. For life insurers, it is almost exclusively the Non-Linked assets that are affected.

- The treatment of sovereign risks will be different and requires particular CIO attention. Current FSA "Approved" securities form a high proportion of the balance sheet of both general and life insurers.
- Equity and property capital rules matter more to life insurers with their larger allocations.

Looked at from the perspective of the capital markets of currently or potentially available investment assets, the impact of Solvency II does raise some UK public policy concerns: the standard approach to capital calculation is bizarre in its treatment of asset backed securities – such as the huge market of prime residential mortgage backed securities (RMBS) – and remains unclear on the treatment of loans generally – including term loan capital to corporates.

## Capital Charges and the Solvency Capital Requirement (SCR)

The capital charge on different asset classes is more important when capital is constrained. But we also expect risk adjusted return to feature prominently in asset allocation decisions, especially in firms that have relatively comfortable capital positions and are able to take higher risk so long as it is remunerated.

Pillar I capital will fall for many firms and the more risk sensitive approach of Solvency II will encourage shifting to less capital intensive investments, because capital is scarce and asset allocation is one way of economising on the need for it.

Firms can use partial or full internal models instead of the Standard calculation for some or all of the modules for the SCR. Conditions for their approval are tough. The Standard SCR will need to be estimated anyway.

The Standard calculation of the SCR will involve six modules. The CIO needs to engage with the detail of at least two: Market Risk and Counterparty Risk. Market Risk has seven sub modules covering equity, property, credit spread; interest rate, currency, concentration and illiquidity premium (LP) risks.

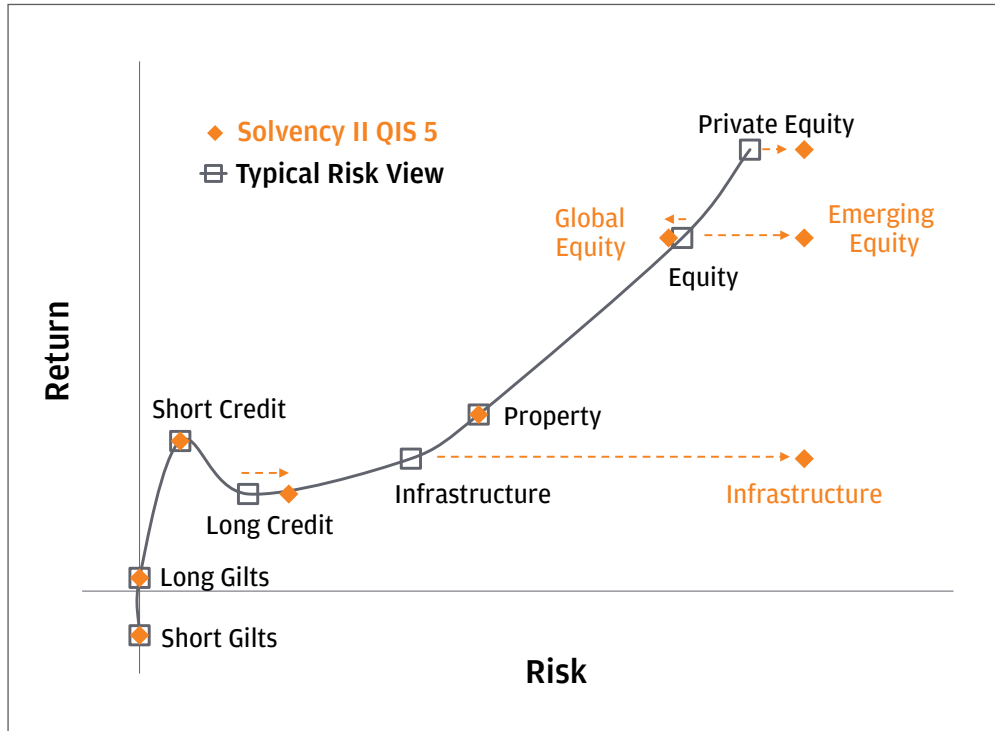
Investment risk will be one main part of any integrated internal model. The CIO will want to be involved in influencing at least its investment related scope, design, operation and development.

Market risk is a prime concern for all insurer CIO's. In the 2008 QIS 4 exercise, it comprised on average 25% of the UK Non-life insurers' capital requirement. For UK Life insurers under QIS 4 it was 75%.

## Risk/Return Comparison

Figure 1 illustrates how risk assessed under three of the QIS5 market risk sub-modules compares to risk as assessed under typical ICAS calculations.

**Figure 1:** UK/Sterling asset classes - illustrative risk/return comparison (Not to scale)



Source: IIA. For illustration only. Return vs swaps based on 31 Dec 09 Gilt and AA bond spreads and long term assumed returns for other classes versus typical ICAS charges and EU Commission QIS 5 Technical Specifications (base capital charges).

Capital charges for investment/market risk are generally higher than under any current FSA Pillar I approach, and in some cases significantly so - for example long dated credit. While most QIS 5 base "shocks" are not much out of line with the levels typically estimated by firms under ICAS, the peak capital on "Global" equities can be 22% higher (49% charge Vs ICAS of 40%) and on "Other" equity 48% higher (59% charge Vs ICAS of 40%).

"Global Equity" means EEA or OECD listed. "Other Equity" therefore includes emerging equity and is also a dump for everything else, including investments that are not equity at all, but don't fit in elsewhere, either directly or on the basis of a look through. These include hedge funds, private equity, and "alternative investments" such as commodity and "infrastructure".

Property risk assumes a 25% value drop. But the definitional boundary with equity is important. Investments in managers, developers and leveraged property investors are treated as equity risks.

The spread risk module deals separately with bonds, structured credit products and credit derivatives.

AAA/AA Sovereign obligations in non-domestic currency are not exempt from the spread risk charge. Under comparable treatments in the current FSA Pillar I rules, these would typically attract a zero charge.

The capital charges for structured credit products (ABS, CDO etc) are dominated by a look through approach, revealing a Looking Glass world of which Lewis Carroll would be proud: lower risk structures can attract higher capital charges, particularly so in the case of Prime RMBS, the second largest UK bond market after gilts.

Credit derivative net long or short positions bear much higher capital charges than equivalent duration positions in the underlying bonds. There is no apparent exemption or adjusted scale for sovereign risk: naked shorts or longs would consume capital whatever the underlying.

The systems implications and data requirements for the SCR calculations, whether Standard or internal model, are huge. So too are the analytical challenges of calibrating internal measures of investment risk to meet the model approval requirements.

### **Valuation & reserving: the liability benchmark**

For the CIO, the most relevant changes in the valuation basis under Solvency II are:

- Market values for all assets, including any currently held at amortised cost
- The valuation of liability technical provisions using discounting, including the use of an illiquidity premium.

Liabilities take over all the driving. Changes to credit in the asset portfolio will not affect technical provisions. Liabilities will be discounted for all firms using a swaps based curve with an added illiquidity premium ("LP"). This will change the benchmark for investment.

The LP will introduce a source of solvency volatility that, as specified, is difficult to hedge. QIS 5 uses a proxy measure to derive the Liquidity Premium from the spread over swaps of a standardised model portfolio of corporate bonds. Since such spreads change and are different between currencies, the liquidity premium varies - through time and by currency.

This will be at least irritating for general insurers and a challenging issue for life firms. Internal models can't be used to deal with this problem or with valuation generally: only the specified valuation curve may be used. However, the way the LP is specified will eliminate a significant disincentive under the current Pillar I regulatory approach for life firms to reduce credit risk in their asset portfolios.

The changes to liability valuation should prompt greater use of swaps, less constrained mandates and wider use of total return. So long as the standard SCR specification is corrected, or its shortcomings may be avoided through internal models for capital calculation, we would expect to see a more dynamic approach to using traditional assets and wider use of non-traditional assets, but with a greater focus on their underlying risks than in the recent past.

## CIO Checklist

- Engage with the Chief Risk Officer and the actuarial department
- Use the QIS 5 exercise to identify gaps in resources and capability
- Ensure your views are heard in the continuing consultation on implementing Solvency II
- Engage in the design of your firm's internal model(s)
- Ensure early engagement with the FSA on the internal model(s)
- Prepare for an intense data gathering exercise; and it won't go away
- Check the transparency of all investments under Solvency II
- Assess the suitability of all investments under Solvency II
- Consider both internal benchmarks and asset allocation under Solvency II

## More information

To assist CIO's in addressing the issues raised by Solvency II, we have prepared a full and detailed report "Solvency II: A briefing for the Chief Investment Officer". To obtain a copy go to:

**[www.jpmorganassetmanagement.co.uk/institutional](http://www.jpmorganassetmanagement.co.uk/institutional)**

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