Research Update Report

The full April 2011 IPD research report offered a detailed review of the Solvency II regulatory framework proposed for determining insurance company capital adequacy rules from 2013. The study focused specifically upon real estate, and was funded by a consortium of seven key trade bodies representing the insurance and property investment sectors across Europe.

The European Insurance and Occupational Pensions Authority (EIOPA) Solvency II papers advocated risk-based regulation and included a proposal – to apply a 25% solvency capital requirement (SCR) for directly held real estate investments – which could have profound effects upon the real estate allocations amongst insurance companies across Europe. They remain one of the sector's most important investor groups, accounting for between 25% and 35% of the total European property investment market covered by IPD.

The 25% threshold test was part of a direct response to the collective financial sector failure to effectively hedge the implicit market risks of the asset classes in which they were invested prior to 2007. It was defined for real estate by identifying the most volatile major European property investment market over the 25 years to December 2009 – the UK – and finding the greatest 12 month loss of return by comparing extreme tail values at risk (VaR).

This note reprises the context of the original study and briefly summarises (in green) updates to that research and follow-on debate that have crystallised some of the issues arising from the proposals.

Review of the regulatory framework

The research started with an intensive scrutiny of the internal logic and supporting analysis of the EIOPA proposals. This review showed that they had brought a meticulous and novel risk perspective to bear upon a more prudent approach to capital adequacy. This was built upon a broadly robust technical base, but one which made some questionable assumptions, and was not always clear as to the scope of its applicability.

A crucial scoping question which has emerged in the post-research debate relates to pooled fund structures. There appear to be two possible treatments:

1. The fund is treated as transparent, looking through to the underlying real estate. In this case the 25% market shock is applied to the gross value of the assets and the debt deducted to give a net carrying value for Solvency II.
2. The fund is treated as an equity investment. In this case, the market shock is 39% for a listed vehicle and 49% for unlisted. This is adjusted for the dampener and the shock applied to the net value.

The uncertainty as to which treatment is envisaged under Solvency II arises from comments regarding geared companies which suggest that geared vehicles should follow the equity treatment. In practice, pooled funds and other vehicles cover a broad and complex spectrum in terms of the vehicles themselves, the way in which they are funded, and the nature of their underlying investments. In this circumstance, and to avoid a multitude of anomalies, the post-research debate suggests that the most sensible option would be to allow insurers to decide on a case by case basis if they think that an investment in a real estate vehicle should be treated as transparent or equity, depending upon the nature of the vehicle and its investments. In no case could this result in circumvention of the Solvency II principles.

Improving the information base for Solvency Modelling

To meet the demand to better inform the new regulations, the IPD project team created a series of 10-year quarterly indices for all main European property markets, enabling more effective downside risk, correlation and cluster analyses.
Since April, there has been an overwhelmingly positive response to the research, and so all valuation based series have been updated to December 2010 or beyond, and the values at risk, correlation and cluster analyses have all been updated and extended in scope where possible, generating the following headline results:

1. No historical analysis over any period earlier than that of 2008-09 uncovers any higher 0.5% tail VaR than those flowing from the results during this phase of extreme volatility, with only the smallest IPD measured investment market in Europe – Ireland – producing worse than the UK 25% 12 month number.
2. This updated analysis, extended to include UK residential returns but at European average weights of capital, still reduces the UK VaR from 25% to 20%.
3. On mainland Europe, no market exhibits a 12 month tail value higher than 10% over any period (Spain proving the most volatile with a .5% figure of 9.1%)
4. The average European cross-market correlation, now quarterly through December 2010 for the 11 largest economies, stands at 0.5, rising to a maximum of 0.7 if continuously recomputed over all available shorter 12 quarter periods. The latter result suggests an expected but not extreme asymmetry in downside risk containment.
5. Over the longer 11 year period, clustering techniques still highlight, first the relative independence of the UK from the dominant mainland European cyclical pattern, and second the much greater independence of the German/Swiss pattern from that of all other major markets.

The original research adjusted the quarterly valuation based indices one step further, to allow for the transaction driven volatility intrinsic to illiquid real estate markets, and revealed clear patterns of extra volatility, and thus tail values at risk, above valuation determined levels.

Model development, further exploratory and update work all continues in this critical area of real estate performance research. To date, the work in progress indicates:

1. Negligible (and no upward) movement in the 12 month 0.5% tail VaR for the UK market – of around 23% – even when updated to June 2011.
2. Less than 1% movements in the equivalent tail values for the two best documented and calibrated mainland European markets – Netherlands and France – when updated to December 2010, with the French result dropping slightly to 8.4% and the Dutch rising a little to 9.5%.
3. No indication from recently collected data or model recalibrations that broader Euro-zone tail values will need to be more than marginally – if at all – restated from the 13% average of the original tests.

None of this additional analysis from longer data series therefore warrants a revision of IPD's original recommendation. To add force to the principles which underpin Solvency II, the detail of the regulation should be refined in a way which is sensitive to the documented and complex diversity of property investment practice and performance across Europe. If the broadest available single pan-European property shock factor is requested of IPD, to be based on the very latest evidence of tail values at risk currently available, this would still remain at no higher than 15%.

The update research reported here forms part of the IPD Solvency II Review, and was sponsored by INREV, ABI, BPF, BVI, EPRA, IPF and ZIA.