04

Turning risk into reward: Making the most of economic capital

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Although Solvency II may provide further impetus for the use of economic capital techniques within the insurance industry, its application is still far from universal or consistent. While economic capital provides an excellent solvency management tool, there may be limitations in its use in planning and performance management. Hans Jørgen Andresen, Frank Lyhne Hansen, Jon Macdonald and Gilles Pestre look at the relationship between economic capital and Solvency II and how a more 'economic' approach to risk and capital evaluation could aid decision-making and value creation.

Recent years have seen a surge in the development and application of economic capital and other advanced risk-based capital management methodologies across the European insurance sector. Regulation is no doubt one reason for this growing interest in economic capital; its use is especially common in the UK and Switzerland, which have already adopted risk-based prudential regimes. Solvency II could provide a further spur by applying certain concepts that are comparable to economic capital techniques.

However, economic capital and the planned Solvency II framework are by no means synonymous. Although the ‘standard’ measurement formula is likely to require an ‘economic’ basis for the valuation of assets and liabilities, this is not the same as economic capital evaluation. Where economic capital may come into play is as an overall framework for the internal modelling and analysis used by companies under the ‘advanced’ approach (i.e. the use of internal models under Pillar 1 and to support the supervisory review under Pillar 2). Nonetheless, the development of the robust enterprise-wide risk management capabilities needed to underpin reliable economic capital evaluation could be as important in securing advanced accreditation from supervisors as the numbers themselves (see Figure 1).

Business benefits

Indeed, the principal drivers for the development of economic capital and other advanced risk-based capital methodologies are primarily competitive. Such methodologies can improve an insurer’s ability to quantify the risks it faces, the capital needed to cover them and the real risk-adjusted returns that are being made or should be targeted. Risk-based capital evaluation may therefore help companies to spot threats and weaknesses; identify opportunities that may be missed by competitors and target investment where it can earn its best return. It can also help to align risk appetite with capital allocation and communicate the tangible strengths and potential of the business to analysts, investors and rating agencies. Particular benefits range from helping to secure a targeted credit rating to more effective reinsurance planning and more precise measurement of risk diversification.

Once Solvency II is in place, companies qualifying for the advanced approach could potentially lower their capital requirements and so free finance for investment in new products, expansion and acquisition. Many smaller insurers may lack sufficient resources to develop comparable techniques and therefore find themselves at a competitive disadvantage or even vulnerable to takeover.

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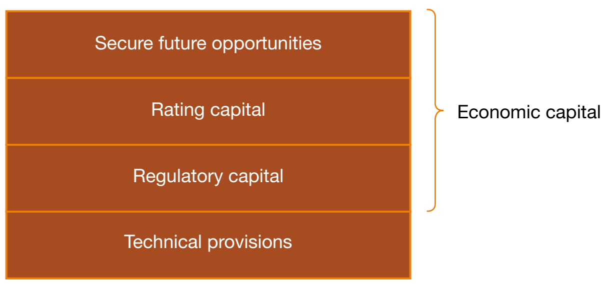
Qualifications and limitations

However, there are limitations and qualifications to the use of economic capital. A small insurer may not need the stochastic modelling and other such advanced analytical capabilities used in economic capital evaluation to understand its risk and return profile. It would certainly be difficult for such a company to justify what is likely to be a sizeable investment in systems and the people needed to operate them.

Even the most sophisticated risk-based capital management systems are only as good as the reliability of the data, validity of the assumptions and quality of application that underpins them. Data may be incomplete or inconsistent. Even if the desired data is available, it could be dangerous to give too much credence to model outputs without the sense check of experience and intuition – as Einstein said, ‘not everything that counts can be counted’. In short, risk-based capital management cannot exist in a vacuum; it requires expert implementation, development and embedding to be credible and relevant to the business.

Figure 1 The building blocks of economic capital



Source: PricewaterhouseCoopers

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Ultimately, the way economic capital techniques are commonly applied may be inconsistent and may not always reflect the value considerations of shareholders. In particular, basing evaluations on extreme tail risks may deflect attention from a more balanced appraisal of the entire risk spectrum, including upside risk. In turn, this may lead to too much focus on book capital at the expense of the market capitalisation ('value') on which shareholders require a return and, in turn, the management of more day-to-day risks that can contribute to this.

Moreover, economic capital evaluations make no distinction between the cost of the capital needed to cover non-diversifiable systematic risks, such as interest rate rises, and non-systematic risks, such as insurance risk, that an investor can diversify across its portfolio. This omission is not a problem for capital adequacy evaluations, since all risks are equally relevant in that context. However, it can create distortions in measuring performance or evaluating strategic options such as acquisitions. One notable anomaly would be the recognition of diversification benefits in an economic capital model that would normally be disregarded in the capital asset pricing models (CAPM) used in corporate finance, or more recent market-consistent pricing models being implemented across Europe.

While economic capital could remain the central framework for managing capital and solvency in particular, the pricing of risk may need to be adjusted to take account of the relative level of systematic risk. Companies may also look to base performance evaluations on a more market-consistent approach to risk pricing that bypasses capital in favour of a monetary 'risk load'. Such an approach, which is analogous to CAPM techniques, is already evident in the latest European Embedded Value principles.

The development of a more balanced market-orientated basis of evaluation could help to broaden the focus of risk and capital management from tail risk provisioning to value enhancement across the risk spectrum. For example, the introduction of more effective operational controls could reduce capital charges (downside risk management). This could be aligned to steps to improve customer service and satisfaction that could enhance profitability and so compensate for the retained risk (upside risk management).

Aligning compliance and competitiveness

Economic capital is becoming an increasingly important part of the management toolkit. Its increasing adoption is without doubt a welcome development, not least because of the resultant benefits to risk analytics. Its concepts are also mirrored in much of the thinking that underpins the development of Solvency II. Closer alignment between the way companies manage their businesses and how they are regulated can only be beneficial for insurers, policyholders and shareholders alike.

Economic capital evaluation can play a key role in determining solvency levels and allocating capital more efficiently. It could be especially valuable for insurers that are moving to more sophisticated risk-based prudential regimes for the first time. However, it is essential to recognise that it has limitations when evaluating business performance and strategy. Leading insurers are therefore exploring new and modified ways to evaluate risk that may be more aligned to the economic interests of their investors. This includes a more holistic and market-consistent approach to how risk is perceived, controlled and aligned to value creation. ■

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