

# **Developments in sources of capital for UK insurers**

## **1 Introduction**

For much of the history of insurance in the UK there has only been three (and arguably really only two) sources of long term capital for life insurance companies.

- Shareholders through equity subscription
- Policyholders through undeclared and unreserved future bonuses
- Inherited estate

It is the last of these that, it could be argued, is not a distinct type of capital since its original source is the shareholders or policyholders. However, where ownership of an inherited estate has not been defined by companies or the regulator it remains an important consideration for some.

Also worth noting is financial reinsurance, though this has tended to be integrated into a particular product line rather than something fundamental to the long term capital of the company. It is worth noting though, as it can perhaps be seen as a precursor to some of the developments discussed here.

Over the last few years in the UK, this picture has changed. Though the old sources of capital remain, their relative importance has changed. New regulations on valuation and solvency have also introduced the possibility of new sources of capital.

This paper is intended as a brief introduction to these new sources of capital. It begins with some scene setting for how and why these changes have taken place, and closes with some remarks as to how these changes may be relevant in India.

## **2 Recent changes affecting capital provision**

From 2001, it became increasingly clear that the availability of adequate capital for the life insurance business was something that could not be taken for granted.

In that year, a new Government designed and promoted pension product was launched which fixed a total charge of 1% per annum on the funds in the policy. This product is known as the 'Stakeholder' pension. Where the charges are concerned, this was a significant development by comparison to existing products in the market which used a number of different charge carriers. In these products, the variety of charge carriers allowed for a reasonable match between the incidence of charges and expenses. As a result, money invested by the company in new business commission and initial expenses was recouped fairly quickly.

This was not the case with the Stakeholder pension. The charges build steadily from zero at the start of the contract. Any initial expenses and commission are recouped over a much longer period and their recovery is very exposed to the risk of policies lapsing or being paid up. The focus on charges, along with the action of some companies in the market and some associated sales regulations, meant that the influence of Stakeholder on financial products generally was significant.

The overall effect of Stakeholder's introduction was to make writing business much more capital intensive. Not necessarily because it took more capital to write a particular piece of business, but because it took longer for this capital to be recouped. Additionally, the reduced margins in the product meant that economies of scale were sought and companies looked to write larger volumes.

Not only did companies need more capital to write a certain volume of business, but some were also seeking to significantly expand their business volumes.

At the same time that the capital needs of companies were being affected by these product developments, the equity markets were continuing the fall which started in late 2000. With many companies having a policy of weighting their with profit fund investments towards equities this had a significant impact. As the value of the assets in the fund dropped the effect of smoothing and the increasingly valuable product guarantees reduced the surplus assets available.

Falling asset values in with profits funds can typically have three distinct effects on the available capital for a company. The first is from the fall in terminal bonus expectations. This is important because terminal bonus is usually not fully reserved for. So, a fall in the terminal bonus expectation follows on from the fall in the asset value of the fund, but without a commensurate fall in the reported liabilities. The excess assets which form part of the company's capital are therefore reduced. Here the effect can be amplified if the product guarantees start to bite and impose a hard floor on any liability reduction that might be possible (for example, by cutting reversionary bonus rates). The real importance of guarantees was highlighted by their contribution to the closure to new business of The Equitable Life.

The second effect is on the inherited estate. The inherited estate is one of the financial resources that allowed insurers to invest with profit funds with a high equity weighting. Since it is the inherited estate which supports this mismatch, you can view it as being invested with a higher equity weighting than the fund generally. When the equity values fall the remaining liabilities will need to be matched, taking a greater share of the less volatile assets. The equity correction can therefore have a disproportionate effect on the inherited estate.

The final effect is perhaps more subtle and also more structural. Falling with profits values and the concern this raised with customers (particularly those relying on policies to pay off their mortgage) started to affect the image of with profits. It was no longer seen as a safe choice by advisers and new business volumes into with profits fell. In the long term the effect of this is that the capital reduction from maturing policies will not be replaced by the capital from new policies. Sentiment on with profits was so strong that the possibility of significant lapses as customers 'cut their losses' also became quite real. Raising the risk that the capital reduction from existing business would be immediate rather than at maturity.

So, companies were faced with the possible double burden of an increased need for capital at the same time as two traditional sources of capital were contracting. It is perhaps against this backdrop that shareholders could be seen to be more vocal about requests to make further equity subscriptions.

Finally, the regulator (the Financial Services Authority – FSA) was active throughout this period. Having inherited disparate regulations when they were formed in 2000 and following problems such as those at The Equitable Life the FSA took action. In 2002, the FSA published a report<sup>1</sup> which set out a plan for radical changes to the regulations for valuation, assessment of capital adequacy and with profits governance. It was the outcome of this plan which created the capital provision landscape described here.

Of most relevance to the provision of capital were the following areas that developed from this starting point:

- The level of prudence in the regulatory valuation of assets and liabilities in a with profits fund was reduced to be closer to the minimum level required by the EU. This change did not lead to a reduction in policyholder security due to the next point.
- The Introduction of a 'realistic valuation' for with profits funds. Most notable in this valuation is that the liability value reflected what was expected to be paid back to customers to meet their reasonable expectations. This effectively removes the idea of unreserved terminal bonus. The realistic valuation also included a calculation of the 'cost of guarantees' – an important consideration in the management of the fund.
- Addition of a separate capital assessment, in place of one that was effectively integrated into the valuation of assets and liabilities (here the liabilities include the solvency margin and resilience test). In the earlier capital assessment the main consideration was whether or not the insurer had enough capital to meet its requirements. The new assessment added a further dimension. The new requirements said that not only did the insurer need to have enough capital, but it needed to have enough capital of a sufficiently high quality. This requirement reflected the fact that some sources of capital may be regarded as being of a higher quality than other sources. The following section explores further the idea of capital quality.
- Addition of an unpublished Individual Capital Assessment (ICA) which explored capital adequacy in more extreme scenarios. This included allowing the modelling of more extreme management actions in response to the scenarios.
- Significant expansion in the governance rules for with profits funds. Much of this related to transparency for the customer so that they may understand better how their fund is being operated. However, it also restricted what an insurer could do with the capital available in a with profits fund. The reasoning being that while a with profits investor might expect to support some lines of new insurance business, they might not expect this support to represent a significant part of their investment. They might also not expect the support from their policy to extend to non-core activities of the insurer, such as setting up a bank.

Taken together these new rules provide a much more detailed assessment of an insurer's financial position and some clarification on the capital available to it. However, the rules on capital assessment were not all one way. The FSA also considered the implications for good company governance in this environment. To this end they also introduced new regulations which gave companies a clearer right to access new sources of capital – the approach having been somewhat ad hoc in the past.

### **3 A note on capital quality**

The concept of capital quality has come to insurance from similar ideas in banking. The heart of this concept is that capital is there to protect the company in adverse situations. Just as these situations can be more or less serious, different sources of capital are more or less able to protect the company in these situations.

To this end, following the banking definitions, the FSA has defined 'Tier 1' capital as being of the highest quality and 'Tier 2' capital as being of somewhat lower quality. The FSA also defines 'Tier 3' capital, but this is not considered for insurance companies – the FSA has a wide remit covering other financial services in addition to insurance. The quality of an item of capital, and hence its tier, depends on the following<sup>2</sup>:

- its ability to absorb losses
- ranking, for example on wind-up
- degree of permanence
- the possibility of deferring or waiving servicing costs.

Though Tier 1 capital is of the highest quality, there are three subtypes as follows (in decreasing order of quality):

- Core Tier 1 – eg permanent share capital, valuation differences, fund for future appropriations (in effect future terminal bonus).
- Perpetual non-cumulative preference shares.
- Innovative Tier 1 instruments – perpetual subordinated debt, on which there is more discussion later.

Similarly, Tier 2 capital has two identified subtypes:

- Upper Tier 2 – perpetual subordinated debt, of which there is more discussion later.
- Lower Tier 2 – dated, but long term, subordinated debt.

The regulations set limits on how much of each tier is allowed to count towards the capital resource requirements that are specified in the regulations. These restrictions apply as caps as a proportion of total capital, by comparison to another type of capital or against the capital resource requirement.

It is perhaps interesting to note that the traditional forms of capital would fall in Tier 1 and most of these in Core Tier 1. Only in the last few years have insurers started to use Tier 2 capital, though at the time it was not known as such. Prior to the regulations being drawn in this way, the benefit of Tier 2 capital was only available on application to the FSA.

#### **4 The new sources of capital**

With the introduction of the capital tiers, as well as other supporting regulations new sources of capital have been made available. Discussed here are:

- Tier 2 subordinated debt
- Innovative Tier 1 debt and,
- Securitisation instruments

In addition to these another form of capital provision, which may have been possible for some time, has started to attract more attention as new capital providers enter the market:

- New business reserve financing

In passing, it also worth mentioning another form of capital introduced by the FSA – this is known as the ‘Implicit Item’. This was introduced as a stop-gap measure when the events described above stretched company resources on the traditional valuation measures. At that time, the new regulations were not yet ready, so the Implicit Item was introduced. Subject to certain limits, and only on application to the regulator, insurers were allowed to recognise some of the future profits on their in force book of business as an item of capital.

With the introduction of the new regulations, the Implicit Item has a limited future life span with companies being expected to run off any allowance they are currently using. It is therefore not discussed further in this paper, except to note that conceptually it is quite similar to a securitisation instrument.

## **5 Insurance companies and borrowing**

Before discussing in detail the different forms of capital listed in the previous section, it is worth noting that all of them involve a loan of one form or another. This is relevant because an ordinary loan to a life fund will not generally help an insurer's financial position.

The reason for this is that the loan will appear as both an asset and a liability of the life fund. So, all things being equal, when an insurance company borrows money the relative position of its assets and liabilities does not change. If an insurer wants to borrow money to finance new business it cannot really do so because the liability created has the same effect as if the insurer had used its existing assets to finance new business. In this case the main benefit that can be achieved in using a loan is to provide short term liquidity to save on the transaction costs of selling long term investments.

This point, while perhaps being obvious, is worth mentioning because it helps to place the enabling regulations for the new sources of capital in context.

## **6 Tier 2 subordinated debt**

### **6.1 Structure of the instrument<sup>3</sup>**

At a basic level, subordinated debt is very similar to unsecured corporate debt issued by non-insurance companies. It may be dated or undated and have a fixed or variable coupon. As a corporate bond, the debt may be listed on a recognised exchange and traded without restriction between holders. The issue may be made in Sterling or another currency. If required, a rating may be sought for the issued debt.

The key requirements for treatment as Tier 2 capital relate to the subordination provisions. Overall, these aim to ensure that, as far as possible, the claims of the holders of the debt rank behind the claims of the policyholders (and other unsubordinated creditors) in the event of a wind up. This requirement can be met by making any repayments contingent on some measure of the insurer's financial position at the time – also known as a solvency measure. To support this the following key features are specified in the regulations:

- Events of default are limited to failure to pay an amount when it falls due or wind-up of the company. Neither event can prejudice the subordination. Note that the insurer using its option to defer payment or a mandatory deferral would not count as failure to pay an amount when due (since in this circumstance the payment is no longer 'due' under the terms).
- As far as possible, the only remedy in the event of default is to petition for winding up of the company.
- Except on default, repayment of the principal is only triggered on the stated maturity date or (when allowed) at the option of the borrower.
- Creditors waive their right of set off of amounts they owe the insurer against subordinated debts.
- Original maturity of at least five years, with no option to redeem in that period.
- The instrument is fully paid up.

It is also important that the marketing of the instrument to creditors is consistent with its actual terms. Any suggestion that it would be treated in some other way (for example, an undertaking to use an early redemption clause on a perpetual instrument) would mean that the capital Tier awarded to the instrument would be consistent with the marketing rather than the contractual terms and conditions.

With these features, an instrument is eligible as Tier 2 capital. With the following additional features, the instrument may be eligible as Upper Tier 2 capital:

- It has no fixed maturity date and is not redeemable except at the option of the insurer.
- The insurer has the option to defer any coupon.
- The debt is not included in the liabilities of the insurer when assessing if the company is a going concern.

Subject to legal opinion that these requirements along with certain other provisions have been met in its terms, an instrument may be included in the Tier 2 capital of an insurer.

While it is possible for the creditor to be a single financial institution, cost and capacity considerations for an issue of meaningful size would usually drive the transaction to be structured as exchange listed corporate bonds.

## **6.2 Regulatory treatment**

Provided all the requirements have been met, then an instrument that has been issued will be included in the capital resources of the company. The inclusion is subject to limits on the total amount of Upper and Lower Tier 2 capital, but full credit would certainly be expected at the time of issue.

However, this inclusion is only for the purposes of the capital assessment with the instrument counting as an additional capital resource to the value of the issued notes. As an instrument issued in the course of insurance business, no special treatment is given to the debt in the valuation of the technical liabilities and it is included at full value. This treatment is consistent with the fact that the insurer would expect to make the scheduled repayments unless absolutely necessary. This is distinct from the capital assessment where it is implicitly assumed that the situation would be such that there would be a deferral. Since the company should also have the assets from the issue, the overall asset-liability position of the insurer is largely unchanged.

If the notes are issued in a currency other than Sterling then the benefit from the additional capital benefit will move in line with the currency value. The asset-liability position can largely be protected with a matched investment strategy with the proceeds.

In summary then, the insurer has only improved its regulatory capital position – the excess of assets over liabilities is largely unaffected. As such, the insurer has additional capital available to protect itself against adverse circumstances but not for day to day financing of the business. Effectively, it is not able to spend the proceeds of the issue because to do so would reduce its assets without changing the liabilities.

As an aside, because the proceeds cannot be spent they must instead be invested. To ensure capital security, Government bonds which match the issue are the logical choice. The cost of this capital is therefore just the spread between the coupon on the instrument and the coupon on the matching bonds. So though the capital benefits are quite restricted in scope, the cost is also quite low, particularly when spreads between Government and corporate bond yields narrow. If an insurer finds itself constrained by a lack of statutory rather than working capital, or wishes to present a high statutory capital coverage for hygiene purposes, this type of arrangement can be a useful solution.

## **7 Innovative Tier 1 debt**

For practical purposes, the appearance of Innovative Tier 1 debt will be very similar to Upper Tier 2 debt. However, it has a deeper level of subordination and some of the terms are more restrictive than equivalent Upper Tier 2 debt – for example on step-ups in the coupon rate.

## **8 Securitisation instruments**

Securitisation instruments have been present in banking for some time, particularly for mortgage backed securities. In insurance, the concept is much newer and now relies on an enabling regulation that was introduced recently. As a result, the concept is still somewhat theoretical, though there have been examples that came close to the effect intended by the current regulations.

### **8.1 Structure of the instrument**

As for the subordinated debt discussed earlier, the instrument is likely to be structured as a corporate bond with a defined coupon, term and so on. For this instrument though, the repayment of principal and interest will be contingent on the emergence of surplus on a defined block of business. The schedule of principal and interest payments will be defined by the expected emergence of surplus on the defined block of business. To give additional investor comfort, the schedule of repayments will be set after consideration of how the cashflows will be affected by various stress events such as a market correction or a change in lapse rates.

As with other securitisations, it is possible to wrap the issue with a financial guarantee from a monoline insurer. The effect of this is to enhance the credit rating of the bond, reducing the overall interest cost and allowing more investors to buy into the issue.

### **8.2 Regulatory treatment<sup>4</sup>**

The possibility of a capital benefit from securitisation is introduced in the following brief regulation for the valuation of reinsurance cashflows:

*“...reinsurance cash outflows that are unambiguously linked to the emergence as surplus of margins included in the valuation of existing contracts of insurance...need not be valued...”*

In this context, ‘reinsurance’ includes ‘analogous non-reinsurance financing arrangements’ which has securitisation as one example. Surplus is that emerging on non-profit business or just the shareholder cashflows on with profit business.

For an instrument that meets this requirement, the effect is that the loan advance would appear as an asset in the regulatory valuation, but the repayments would not. This means that for the valuation the assets have been increased but the liabilities have not. The benefit from this asymmetry in the valuation flows through to the capital resources as a 'positive valuation difference' which is regarded as Core Tier 1 capital. That is, capital of the highest quality.

One interesting contrast to the subordinated debt is that, though this is capital of a higher quality there is no requirement to defer repayment at the insurer's option or when solvency is under threat. If the defined block of business produces the necessary surplus, then the payment falls due. However, it is the substantial asset added to the books without a corresponding liability that makes this arrangement work to protect solvency.

Having said that the liability does not appear in the regulatory valuation, it is worth noting that if the block of business is written in a with profit fund then the liability would appear in the new realistic valuation. The reason is that one of the realistic assets is the value of in force business. Upon issuing the instrument a new asset is created in the form of the proceeds. The value in force is then at least partly double counted – as an actual asset from the proceeds and as a realistic asset. The effect is addressed by setting up a realistic liability to represent the repayments of the loan. The net effect should be that the realistic asset-liability position is largely unaffected.

While this is a small part of the valuation regulations, even with the associated additional guidance, it is potentially very powerful for the management of an insurance company. It raises the prospect – at least in theory – of an insurance company operating as a warehouse for packaging insurance investments out to external investors using a modest amount of capital that is rapidly recycled. The insurer uses its capital to write a tranche of new business which it then packages into an ongoing series of securitisation bonds. Selling the bonds into the market rapidly recoups much of the capital invested and the insurer can repeat the process. This is analogous to what banks can do with their mortgage book and mortgage backed securities.

While the insurance investment is similar in principle to an equity investment, the securitisation investor has a much more direct connection to the underlying insurance business. Not only is it a purer insurance investment, the investor can potentially also be given a choice of the line of business in which they invest.

However, this is not a market that exists yet and deals have not used this approach. Perhaps the key challenge for the current market is in striking the right balance between the requirements from the regulator – which are very clearly stated – and the target market for any issue. The former requirement makes the instrument look quite like an equity, but to maximise the target market something that looks more like a corporate bond is required. With the wrong balance it will either be difficult to demonstrate that the regulatory requirements have been met or the market for the bonds will be restricted, pushing up the costs.

## **9 New business reserve financing**

This is probably not a new approach – rather it is something that merits new consideration as the financing of insurance companies attracts more attention. Also as new providers of insurance capital seek to enter the market. As with the other methods described here, the heart of this arrangement is a loan.

### **9.1 Structure of the instrument**

The loan instrument here is actually very straightforward. An institution lends money to an insurer who in turn uses these funds to write new business. The loan is on appropriate commercial terms and would typically be expected to have a short repayment period.

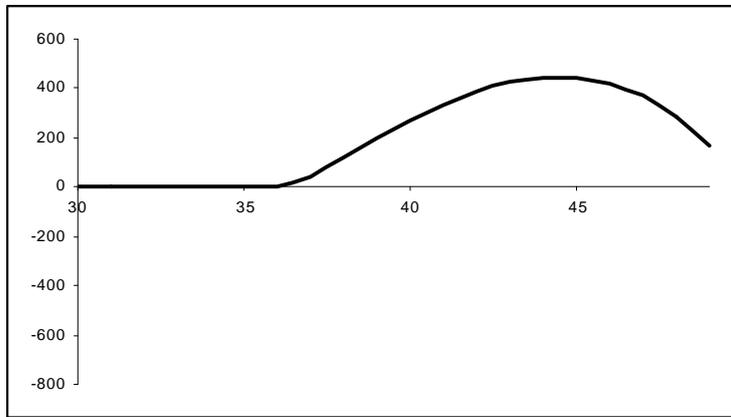
The reason for suggesting an institution is that the loan need only be drawn down as new business is sold rather than in one tranche as for a corporate bond type arrangement. If the institution could not offer sufficient capacity then they could act as a warehouse, packaging the loan for external investors when a reasonable amount of in force business has been achieved. In spite of the apparent simplicity of the loan, the financial structuring required to achieve this should not be underestimated.

### **9.2 Regulatory treatment**

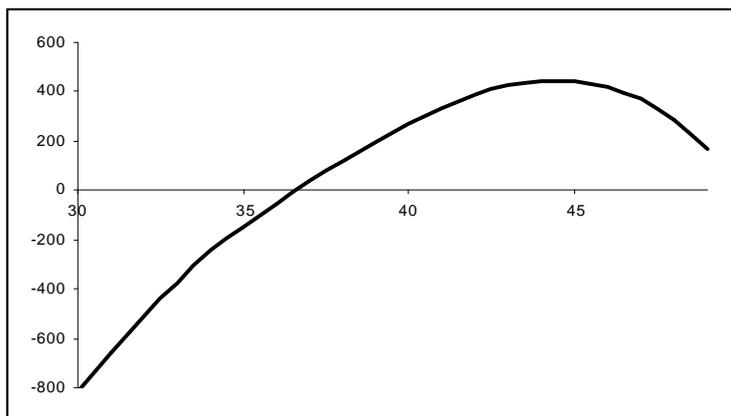
Since this loan is on normal commercial terms with no contingencies or conditions on repayment it does not actually attract special regulatory treatment. All things being equal, the loan is treated as a liability and included in the valuation and the insurer is no better off for having taken the advance.

However, in one special case, it is possible for the insurer to see a benefit from the loan – when used to finance contracts which but for zeroisation would have a negative reserve at the outset. The simplest example of this is a protection contract, and is perhaps best illustrated by an example.

Consider a 30 year old, taking a 20 year term assurance of moderate size that pays upfront initial commission. This would be expected to show a reserve something like this, over its lifetime with the age of the policyholder:

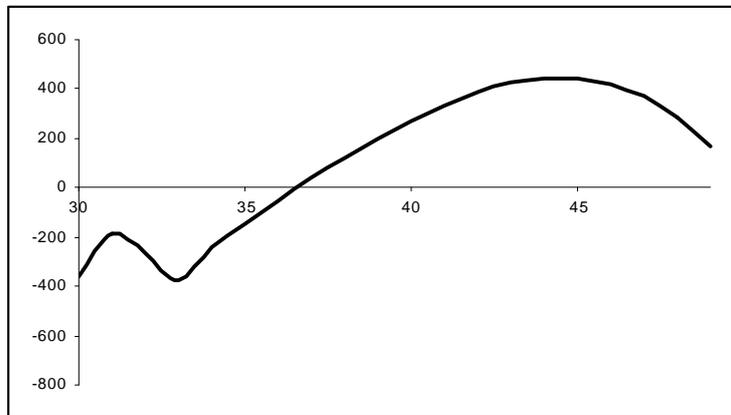


During the early stages the reserve is shown as zero because it has been zeroised. Without zeroisation, the reserve for the same example would look something like this:



The substantial negative reserve is caused by the high initial expenses and commission (together about 175% of the premium in this example) which are recovered from future margins in the premium.

If the insurer then borrows enough money to cover the initial expenses and commission and repays over two years then the reserve without zeroisation would look like this, assuming the policy has the loan allocated to it:



As expected, the loan has increased the reserve for the period that it is an outstanding liability. However, it has not increased the reserve to the point that it is positive. Overall the reserves after zeroisation will not have changed.

Of course, in reality, the arrangement is unlikely to be this simple to achieve. One of the more significant complications is that the loan must be repaid even if a particular policy lapses. This will be of special relevance where there is a high lapse rate – say 20% or more in the early years. Clawback of the commission can help this because it provides some additional funds to repay the loan with. However, you do still need to consider that the insurer has a loan in respect of a book of business that is reserved for policy by policy. A careful analysis of the book and the effect of lapses needs to be made to see how robust the amount advanced is. By reducing the level of advance, the risk of creating positive reserves can be reduced, but at the expense of a less attractive financing arrangement.

It is also worth noting that the example shown here was carefully chosen. Significant negative reserves will only be seen on policies where the risk costs are low relative to the expenses and commission (in this example, just over 50% of the premium goes towards risk costs). This means fairly young policyholders, short terms and low to moderate sums assured.

The final important point to note is the assumption made above for treatment of the loan in the valuation. The assertion to be made is that the loan only exists because of the sale of this policy. It is therefore reasonable to include it *within* rather than *after* the policy by policy valuation. While this is perhaps a reasonable assertion, the situation is made more opaque by the loan operating at a company level and not ending just because of a policy lapse.

If the complications can be overcome, this does present an interesting solution to the short term financing needs of certain lines of business. The capital benefit comes from having received an asset without having to set up a corresponding liability.

This type of financing can perhaps most naturally be integrated into the existing reinsurance arrangements. Firstly, the structure of the reinsurance premiums themselves can be used to provide some financing. This in turn will provide for greater margins to be applied to the loan arrangement. Secondly, it is also possible for the lender to take some of the business risks. While this involvement would not necessarily be to the extent necessary to treat this as a securitisation, it could simplify some of the arguments required for the central assumption described above. However, it is perhaps unlikely for a bank to be happy sharing in the insurance risks – something which is much more interesting to a reinsurer.

## **10 Applications in India**

For the most part, the sources of capital described are not currently relevant in India. However, if the reporting and capital adequacy standards evolve along similar lines to that seen in Europe then these concepts will become more useful. When looking at more sophisticated models of capital requirements it is perhaps right that you consider the sources of capital at the same time. Just as the regulations can add more situations in which capital is needed, they can also consider more types of capital to better meet these situations.

The only exception is perhaps the new business reserve financing. With a valuation for non-profit business that shares some features with the UK system it appears less of a development for such financing to be accepted as appropriate in the Indian market.

## **11 About the Author**

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<sup>1</sup> The Future Regulation of Insurers – a Progress Report, FSA, October 2002:  
[www.fsa.gov.uk/pubs/policy/bnr\\_progress3.pdf](http://www.fsa.gov.uk/pubs/policy/bnr_progress3.pdf)

This report is also popularly known as the Tiner report, after its author John Tiner who was the FSA's Managing Director – Consumer, Investment and Insurance at the time.

<sup>2</sup> FSA General Prudential Sourcebook (GENPRU) chapter 2.2

<sup>3</sup> GENPRU chapter 2.2

<sup>4</sup> FSA Insurance Prudential Sourcebook (INSPRU) chapter 1.2, paragraph 79