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Banking: A risk comparison

In the second of two articles, Patrick Kelliher concludes his analysis of the various risks faced by banks and life insurers and asks what each can learn from the other

The first part of this article (see December 2007 issue or visit www.the-actuary.org.uk) started to compare and contrast the risks faced by a typical UK bank (ABC Banking Corporation) and life insurer (XYZ Life Insurance) in the context of the growth in bancassurance over the past two decades. This trend, which has increased the interaction between actuaries, other life insurance professionals and bankers, has further increased with the convergence in regulatory approaches. This second part covers expense, liquidity, and operational risks, and touches on the topics of aggregation and diversification.

Expense risk

XYZ enters into long-term contracts and there is a risk that the charges arising on these may not cover the ongoing cost of servicing the contracts, investing funds, and of meeting any overheads. Historically this risk was mitigated as contracts either allowed costs to be implicitly charged back to investors in returns credited (with-profits), or had explicit service charges which could be varied in line with cost inflation (unit-linked).

Regulatory pressure, however, has limited the scope to reflect costs implicitly in returns for the former type of contract. Moreover, the Unfair Terms in Consumer Contracts Regulations 1995 (UTCCR) have restricted the ability to vary service charges and other contract terms. As a result, increasing service charges by more than earnings inflation is difficult, if not impossible. This represents a significant expense risk to XYZ as per-contract costs may rise at a faster rate if XYZ's portfolio was to shrink and each contract had to bear a higher share of overheads.

This expense risk has become more acute on XYZ's newer contracts. The UK government's 'stakeholder' product regulations have led to XYZ writing business where the only charge levied is an annual management charge. This means charge income is 'back-end loaded' to the latter stages of the contract's term and, as well as making this income stream more vulnerable to withdrawals, it also increases the risk that charges in the early years are not sufficient to cover costs. Furthermore, where XYZ writes stakeholder policies, the charge itself is capped.

By virtue of distributing through brokers, XYZ at least does not need to maintain an expensive branch network like that of ABC. The costs of this are effectively fixed in the short to medium term, and ABC is faced with the challenge of meeting these fixed costs out of its interest spread and other charge income.

Unlike XYZ, however, ABC does have considerable freedom in its ability to vary the spread and other charges on its products. The interest rate on most loans can be varied where necessary to widen the spread. This is tempered by the competitive implications and the risk that any rate increase will trigger early redemptions. Furthermore, this flexibility is not present on tracker or fixed-rate mortgages.

Of increasing importance to ABC are the other charges that it can levy. While increased competition has reduced the interest-rate spread, ABC has made good the difference by increasing other charges by rates well in excess of inflation. For example, like other lenders, it has increased some loan redemption penalties by more than 100% in recent years.

Thus, despite a large fixed-cost base, ABC does not face the same level of expense risk as XYZ because of the flexibility of its charging structure. This flexibility is currently under threat, however, as consumers challenge the scale of charges and increases on UTCCR grounds. ABC has recently ceded on some such challenges and while it hopes to recoup the lost income by increasing other charges, such regulatory pressure may mean that in future the ability to pass on increased costs will be restricted and that expense risk will become a greater issue for institutions like ABC.

Liquidity risk

ABC raises predominantly short-term funds to make medium to long-term loans that cannot readily be realised. This exposes it to the liquidity risk of being unable to repay the former as they fall due, particularly as these funds can be called in at short notice. A surge in such calls has led to bank insolvencies in the past.

ABC pays considerable attention to its liquidity position and regularly conducts stress and scenario tests to ensure it can withstand surges in withdrawals. This also helps it to demonstrate that it meets the FSA's stock liquidity requirements (SLR) of liquid resources under stress situations. It is also adept at securitisation, packaging its illiquid loans into tradable instruments to enhance liquidity.

By contrast, XYZ obtains funds on a longterm basis and invests the bulk of these in readily realisable assets (with the notable exception of property). Until recently, premium inflows have exceeded claim outgoings. Therefore, liquidity risk has not been a significant issue for XYZ.

However, the position is changing as XYZ's investment contract portfolio matures. Claims now frequently exceed premium inflows. Moreover, most investors have the option to terminate contracts and withdraw funds. XYZ could face a similar run as that faced by ABC. The nature of its business means it is not set up to process such mass withdrawals which may limit the impact on liquid resources in the short term. However, this means that any liquidity crisis will be more protracted than that faced by ABC and pose considerable operational challenges. Spurred on by regulatory requirements, XYZ is now devoting more time to monitoring and stress-testing liquidity risk.

While most of XYZ's assets are realisable, this is not the case with the VIF asset on its embedded value balance sheet. Therefore, XYZ is considering monetising this asset through securitisation or reinsurance financing to enhance its liquidity, following the paths of banks.

Operational risk

Both institutions share a wide range of operational risks, from employee relations to processing failures.

One particular risk is mis-selling. XYZ distributes mainly through brokers but it has a small direct sales force for which it is responsible. In common with other life companies, this responsibility led to pensions and mortgage endowment mis-selling claims from the late 1990s to the present date. Chastened by this experience, it has strengthened its compliance function to prevent further recurrence but the risk from direct selling is still there.

Meanwhile, ABC used to act as an appointed representative of a life company that bore the cost of the pensions and mortgage endowment mis-selling by ABC sales staff. Now, ABC is directly responsible for its sales and for mis-selling risk. As well as long-term investments, ABC is also faced with increasing obligations in relation to its sales of mortgages and general insurance products under the FSA's new Conduct of Business regime.

In general there has been a shift in mis-selling risk from life companies to banks, with the former no longer accepting the latter's exposure as an appointed representative, while banks face stricter regulation of sales of non-life insurance products.

Another concern is the risk of external fraud. This has been a problem for banks like ABC that have introduced 'chip and PIN' in the fight against crime. The fraudsters have become more sophisticated, however, and banks continue to suffer external losses, while the criminals have also turned their attention to life companies like XYZ.

Both ABC and XYZ are vulnerable to regulatory risk such as FSA challenges under the Treating Customers Fairly guidelines, and further challenges under UTCCR. As noted, the latter could limit ABC's charge income but could also affect XYZ's ability to review premiums, such as those on protection products.

A difference in the operational risk exposure of ABC and XYZ is the impact on their profit and loss accounts and balance sheets. For the former, an adverse UTCCR ruling will have a modest in-period impact on income but the full loss of any restriction on charges will not come through immediately unless a provision is required. For XYZ, such a reduction in future charge income would be crystallised in full in a write-down of VIF in embedded value balance sheets.

Another difference is the regulatory capital requirements for operational risk. For ABC, operational risk will form part of its Pillar I regulatory requirement from 2008, and it has spent considerable resources on its operational risk control framework, in gathering operational loss data and on modelling operational risk in advance of this date. It is also seeking to differentiate between expected — high frequency, typically low-impact losses — and unexpected components. The former is assumed to be covered by future profits arising and with capital only required for the latter.

For XYZ, operational risk is not currently part of its Pillar I requirement and, until now, it has not devoted the same level of resources as ABC to framework, loss capture, and operational risk modelling. The Financial Services Authority (FSA), however, expects operational risk to be covered in its Pillar II individual capital assessment (ICA), and operational risk is a key reason why the FSA may require additional capital on top of that to be assessed as part of its individual capital guidance. Therefore, XYZ and other life offices are increasing their efforts on operational risk-loss modelling. Note that the distinction between expected and unexpected components is less relevant to a life office as the ICA will already take into account future profits arising (as the VIF is generally allowed for in ICA capital). There may, however, be a need to allow for some level of expected losses beyond the one-year time horizon typically used for ICA, reflecting operational loss exposure over the remaining lifetime of contracts.

Aggregation and diversification

Both XYZ and ABC face similar risks here but the importance of each risk type differs. For ABC, the largest risk is credit risk, though arguably persistency risk can be just as significant if the impact of withdrawals on economic value is considered.

Market risk is modest owing to extensive hedging operations, while operational risk, though significant, is assumed to

be substantially uncorrelated with other risks.

For XYZ, credit risk is not as important as it is with banks. The largest risk is market risk arising from the guarantees on legacy contracts and the impact of market risk on VIF. This is followed by persistency and insurance risk. The latter is not strongly correlated with market risk, and substantial diversification is available. Operational risk is significant, and may be assumed to be correlated to market risk, because of the impact of market falls on the likelihood and impact of mis-selling claims.

Learning from each other

Both ABC and XYZ have more in common than they think, and both can learn from the other in the management of different risks. Life insurance companies like XYZ could learn from banks' management of credit risk, as well their systems and controls for monitoring and hedging market risk and their work on liquidity risk.

Meanwhile, banks could make use of life company techniques for quantifying and monitoring the economic value lost on early withdrawals to supplement their own work on customer relationship management. In addition, they could benefit from life companies' work on longevity risk in assessing the risks associated with equity release mortgages and their own pension scheme liabilities.

Life offices also offer banks an uncomfortable example of how UTCCR and other regulatory factors may restrict their freedom to vary charges. While the outcome of current challenges is uncertain, banks may have to learn life office techniques in managing expense risks on long-term products within a restricted charging structure.

Finally, both banks and life insurance companies have a lot to learn from each other on operational risk. While banks are more advanced in modelling this risk, life companies have possibly more experience of the regulatory challenges to operational risk models by virtue of the FSA's current reviews of ICA. Banks may also learn from life offices' experience of mis-selling; if only to avoid repeating the mistakes life offices made in selling personal pensions and mortgage endowments.

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Push: To demonstrate where actuarial skills and thinking have been applied in a banking or financial context to add real commercial value.

Pull: To highlight tools and skills available in banking and finance that may be of use to traditional life and pensions actuaries.

Please contact either the author Patrick.Kelliher@scottishwidows.co.uk or mark.symons@actuaries.org.uk for more information on the article and the AGB's activities.

Patrick Kelliher works for Scottish Widows. The views expressed in the article are the author's own and do not necessarily represent the views of his employer.

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