



Institute
and Faculty
of Actuaries

Longevity risk transfer markets: market structure, growth drivers and impediments, and potential risks

Basel Committee on Banking Supervision

Consultative Document

18 October 2013

About the Institute and Faculty of Actuaries

The Institute and Faculty of Actuaries is the chartered professional body for actuaries in the United Kingdom. A rigorous examination system is supported by a programme of continuous professional development and a professional code of conduct supports high standards, reflecting the significant role of the Profession in society.

Actuaries' training is founded on mathematical and statistical techniques used in insurance, pension fund management and investment and then builds the management skills associated with the application of these techniques. The training includes the derivation and application of 'mortality tables' used to assess probabilities of death or survival. It also includes the financial mathematics of interest and risk associated with different investment vehicles – from simple deposits through to complex stock market derivatives.

Actuaries provide commercial, financial and prudential advice on the management of a business' assets and liabilities, especially where long term management and planning are critical to the success of any business venture. A majority of actuaries work for insurance companies or pension funds – either as their direct employees or in firms which undertake work on a consultancy basis – but they also advise individuals and offer comment on social and public interest issues. Members of the profession have a statutory role in the supervision of pension funds and life insurance companies as well as a statutory role to provide actuarial opinions for managing agents at Lloyd's.



Basel Committee on Banking Supervision
International Organisation of Securities Commissions
International Association of Insurance Supervisors
C/O Bank for International Settlements
CH-4002 Basel
Switzerland

18 October 2013

Dear Sirs

Longevity risk transfer markets: market structure, growth drivers and impediments, and potential risks.

The Institute and Faculty of Actuaries (IFoA) welcomes the opportunity to respond to this Consultative Document (CD). This response has been written by members of our Longevity Basis Risk Working Party and Life Consultations Sub-committee, who have expertise in this area.

The CD provides a comprehensive and valuable overview of the current market that will be of use to market participants, policy makers and practitioners. The IFoA is supportive of the eight recommendations made in this paper which will, if adopted, help both the understanding and management of the risks in this area. It is useful that the Committee is seeking input from practitioners and the IFoA anticipates that further drafts incorporating this input will benefit from the practical insights they bring.

The IFoA has a number of comments on the detail within the CD which it is hoped will be useful to the Committee.

Executive Summary

The IFoA would encourage the inclusion of a reference to index swaps within the scope of the CD. While to date they have been less used than other types of transaction, they are an important instrument for longevity risk and could have a wider use in the future.

Chapter 2

It would be helpful to highlight within this chapter the legal risk associated with longevity risk hedging contracts. These are legal agreements that are not traded on an exchange and have a variety of standards for collateral, and/ or change of control of the counterparty. In the absence of standard contracts it would be helpful to ensure the negotiating parties are aware of the need for close attention to the terms of the contract and the risks involved.

In Section 2.3 the CD states that “There is reason to suspect that, because of more stringent regulation, insurance-based transactions lead to more complete risk transfer, as a result of lower counterparty risk.” However, the CD does not set out the logical case for this suspicion. Clearly, as discussed in the CD, the counterparty risks are different in such situations and will depend on the extent to which risks are passed through the organisation to others. Furthermore, counterparty risk,

by both insurers and banks, is quantifiable and can be mitigated through collateral. By way of example, the IFoA refers to the transactions done with the BMW and Rolls Royce pension schemes by the Deutsche Bank Group. Both transactions are of similar size (£3bn) and type; however, BMW was transacted with DB's regulated insurer, whereas Rolls Royce was transacted with DB Group as a derivative contract. This demonstrates how it is possible for the risk transfer to be executed using either structure. A deeper discussion of counterparty risks and the extent to which collateralisation can reduce them might be helpful in this section.

Chapter 3

In Section 3.2 the CD states that "the degree to which pension plans are incentivised to pursue longevity de-risking are also impacted by regulations". In this context development in Europe concerning the implementation of Solvency II and a revised IORP Directive may affect the impact that regulations currently have. It is possible that the regulatory disincentives that currently exist for pension plans to pursue de-risking will reduce. The Committee may wish to give some thought to how these developments will impact the long term market for longevity risk transfers.

At the beginning of Section 3.3, there is a reference to 'lemons', i.e. information asymmetry that can make investors nervous about transacting longevity. While pension funds are mentioned here, the IFoA considers this can also be an issue within the insurance market.

While the CD mentions the work being done by the Life & Longevity Markets Association (LLMA) it might be useful to give further detail of their work, in particular, to note that the LLMA has produced standard indices for the UK, Netherlands, Germany and the US (the latest for UK and Netherlands available since they were published in July 2013). This work aims to promote liquidity in the trading of financial instruments that reference longevity and mortality related risks, as well as promoting consistency of relevant demographic data.

The progress being made within the Dutch Insurance Industry may also be worth drawing attention to here as an example of where there is a very sophisticated market in terms of longevity data sharing and publishing. Both the Central Bureau of Statistics Netherlands and their Association of Actuaries, regularly publish tables of mortality improvements (in addition to monthly mortality data published by the CBS). Having a two-dimensional mortality improvements data table published by a statistical body is extremely rare, and no doubt such data has helped executed transactions and those transactions in execution in the Dutch market at the present time.

While it is important, basis risk is in essence a secondary risk to the long term and gradual trend risk associated with longevity exposures. Thus, though it must be taken seriously, it should not distract from the fact that the majority of the longevity risk can still be effectively hedged. In this context the IFoA questions whether the balance of discussion around accepting and managing basis risk is correct. Arguably, it could be seen as overly negative when the resultant risk transfer is broadly effective in managing the first order effects. Further work on this subject conducted by IFoA volunteers can be found at <http://www.actuaries.org.uk/research-and-resources/documents/scheme-specific-mortality-trends-and-basis-risk>.

Chapter 4

In Section 4.3 the discussion seems to focus on the systemic risks within the banking sector that may result from a sharp rise in longevity. The IFoA would make a similar point regarding Section 3.3, i.e. that it is the nature of the risks together with the degree of reliance on counterparties and the extent and strength of collateral used to underpin these that is important, rather than whether an entity is a bank or an insurer *per se*.

Furthermore, under the European Union's Capital Requirements Regulation, banks will be required to hold a significantly increased amount of risk based capital against derivative transactions, including

where those derivatives are linked to longevity risks. Thus, as the banking industry fully transitions to a Basel III capital framework, longevity risks in their balance sheets will be subject to strict capital requirements designed to support these risks. Arguably, the points raised around systemic risks regarding banks are over stated. Indeed, the IFoA would suggest a systemic risk arising from the accumulation of longevity risk within the reinsurance market is currently of equal importance. It is worth noting that at the moment, perhaps temporarily, there are only two UK primary providers for longevity hedging contracts (others are still doing buy-ins/ outs). These primary providers are reinsuring most or all of the risk to approximately ten reinsurers. Systemic risk would seem to be greater the more layers of re-insurance and the further away you are from knowing and really understanding what is in the contract being passed around and who it ends up with, particularly in the “broader capital markets” as the CD suggests.

Chapter 5

The second bullet of the main findings cites basis risk, availability of appropriate data and selection bias (with links to price) as the barriers to expansion. Other barriers, such as capacity e.g. from the (re)insurance sector, could be brought out here. One only has to consider the potential impacts of the Solvency II regime eventually coming through to pricing, or secular changes (such as how some banks have had to close down their longevity risk team over the past couple of years and Basel III has made life subsidiaries less attractive for banks), to see that capacity could be influenced in a number of different ways.

Recommendations 4 and 5 suggest that the capital held for unexpected increases in life expectancy should be considered. Within the EU this will be incorporated within the Solvency II (SCR) for (re)insurers (and was at least tested in the IORP QIS for pensions). It would be helpful to suggest practical ways to implement such a recommendation across all jurisdictions. This is an area where there may be opportunities for regulatory arbitrage to take place, for example, where longevity risk can be transferred overseas (via reinsurance). Recommendation 8 comments on the reduction of basis risk created by risk transfer transactions that are based on standard indices. While the IFoA agrees that use of standardised indices will introduce basis risk, the previous lack of a tradable standardised index has been a key barrier to the longevity risk transfer market expanding further into the capital markets. The move to standardised contracts (albeit with basis risk) has many advantages over a fragmented market of bespoke transactions, which will also have poor price discovery. There is a clear need to understand and manage basis risk, but longevity risk transfer can still be appropriate (also see points under Chapter 3 above).

Conclusion

We hope these points are of use to you as you consider how to take this important work forward. Should you want to discuss any of the points raised in greater detail please contact Paul Shelley, Policy Manager (paul.shelley@actuaries.org.uk/ 07917604985) in the first instance.

Yours faithfully



David Hare
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