



BANK OF ENGLAND

Speech

Insurance risk management in a changing world

Speech given by

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Introduction

Thank you for inviting me to speak to you today.

The theme of this year's conference is "delivering in a world of extremes." This seems appropriate for insurers in all years: for centuries, the industry has delivered security from extreme events, protecting policyholders from tail risk.

The world in which insurers operate continues to shift. We're seeing deep and/or fast-moving change in areas like climate, technology and demographics. On some measures, we're currently living at the tail of the distribution in both financial and external conditions.

The complex risks faced by today's industry would have been unimaginable to the insurers of the past. For example, when early providers sold protection against peril at sea. Or when the Institute of Actuaries was created in 1847 with the purpose of applying "the doctrine of probabilities to the affairs of life." Even in the recent past, in 2002, when Solvency II was first being debated, the business environment, and in particular financial market conditions, looked very different from today.

The challenge for the industry today, and for us as regulators, is how we draw from our strong heritage in risk management to meet the needs and challenges of a changing world. Good risk management has always been founded in curiosity, especially when it comes to risks in the tails of the distribution. Boards – and regulators – who regularly ask "what if?" will be better able to spot both possibilities and threats. But risk management – and regulation - also needs to be flexible and adapt to economic and market conditions, business strengths and weaknesses.

With this in mind, I'd like to talk to you this morning about the PRA's expectations of firms in the area of risk management. And how we are responding to some of the new risks faced by the insurance industry, staying sensitive to different business models while promoting resilience. Today's conference is an opportunity to outline some of the recent policy material we have published that relates to the management of investment risk. I will also take a look at some of the newer opportunities – and risks – that may not yet have a direct effect on investment but will do in the future, and how curious, flexible and proportionate risk managers might respond.

Part 1 – managing investment risk

The PRA has issued quite a lot of guidance around investment risk management since Solvency II was implemented. Solvency II was originally conceived during a different investment risk environment to what we have observed over the years since the financial crisis. Since the crisis, spread compression has forced insurers - like all investors - to adjust target returns and to work harder to achieve those targets. And so -

like other investors - insurers are now faced with the challenge of searching for new ways of achieving yield at a time of historically and enduringly low interest rates and spreads. This is particularly true on the life side, where longer-dated liabilities increase the importance of achieving a consistent return. And, like other investors, insurers continue to look for yield in illiquid investments.

The recent trend for investing in illiquids has been particularly marked for annuity providers, incentivised by the matching adjustment to invest in assets that mirror their illiquid liabilities. While pension freedoms a few years ago have curtailed the retail annuity market, demand for bulk purchases remains high and growing, as corporates seek to manage their own exposure to investment risk by reducing their legacy pension risk – 2018 was a record year for transactions.¹ With the market growing, firms continue to seek out investments in illiquid assets such as equity release mortgages and income-producing real estate which offer a higher expected yield than traded investments and which, as part of a well-diversified portfolio, can be appropriate to back long-tailed liabilities.

Illiquid assets are by no means a new invention, and some of the risks inherent in long-term investment have been understood for many years. In 1870 the Spectator published an article on the regulation of life insurers which began as follows: “a merchant, drawing a bill at 30 years sight, would be considered in the City either a credulous fool or a man who had adopted a very odd mode of giving away his money.” Today, as insurers continue to increase their exposure to long-term illiquid assets, it’s worth reminding ourselves of the particular risks posed by this kind of strategy. First of all, these investments tend not to be traded on regulated markets and are difficult to value or to sell if it becomes necessary. Predicting how they will behave under stress is also a challenge.

If an asset is eligible for the matching adjustment, its income profile will mirror the payments due under the contract it backs. This means that liquidity risk is at least partly mitigated. As we’ve said before [David Rule, “An Annuity is a Serious Business Pt 2 April 19], the PRA therefore welcomes the trend towards investment in MA-eligible assets. However, it’s important to remember that liquidity is not the only risk and other risks created by this kind of investment remain. And these risks may be complex and non-linear such as the No Negative Equity Guarantee risk in ERMs for example, which can create a contingent concentrated exposure to residential property. Or they may be binary and inherently unmodellable - climate transition risk for example - the risk of abrupt repricing of carbon-intensive assets in response to expected or actual regulatory or societal change. Much of the response to complex or unmodellable risks is not quantitative but qualitative – the domain of the prudent person principle.

¹ “Report: Pension de-risking 2019”, Lane Clark & Peacock LLP, 2019.

Prudent person principle

Solvency II is not known for its lack of detail, but on investment it is remarkably concise. Investment risk is primarily covered by just two pages of legislation, Article 132, known as the Prudent Person Principle or PPP. This was not invented by modern regulators: it is another long standing concept. Originating in Trust Law, the earliest references we've found in case law are from the 1740s. A later, 1883 case highlights: "No doubt it is the duty of the trustee...to deal with the property entrusted into his care exactly as any prudent man would deal with his own property. But the words in which the rule is expressed must not be strained beyond their meaning. Prudent businessmen in their dealings incur risk. This may and must happen in almost all human affairs."

The emphasis on judgement and proportion has remained as the PPP has developed over time. It is now a cornerstone of investment regulation for both Pensions and Insurance. In the context of Solvency II the PPP sets high level, qualitative standards – for example that investment in non-traded assets should be kept to prudent levels. It also emphasises the importance of sound risk management and governance.

When implemented effectively, this approach can be powerful. It promotes curiosity, by putting the onus on firms, and regulators, to really understand the risks faced. It's also highly flexible, allowing for a range of reasonable investment strategies and practices, and avoiding crude, top down constraints. This flexibility means that the PPP facilitates a certain amount of investment risk and is sensitive to different business models. The trend towards illiquid assets as market conditions have changed is a case in point – these would have been largely inadmissible under the previous insurance regime.

High-level principles are desirable. However, we have found that in practice, firms have not implemented them to a consistent standard, taking into account their varying business models, scale and complexity. This isn't good for the safety and soundness of some of the firms we regulate, or protection of their policyholders - – the PRA's primary objectives. More consistent implementation would also create a more level playing field for firms, enabling more efficient business and a more competitive marketplace, supporting the PRA's secondary competition objective.

In response to increasing supervisory concerns, we published last week a consultation paper which sets out proposals for a supervisory statement that clarifies how we expect firms to implement the PPP. We have tried particularly to provide guidance for firms to manage better the risks inherent in illiquid assets. There are four areas I'd like to highlight:

1. We've proposed setting expectations about how firms determine their investment strategy. This includes considering investment risk in the context of their overall risk appetite. We expect firms to be able to satisfy us that their appetite for investment risk is in line with the PPP and that the risks they are running do not exceed their appetite. Some firms are already doing this. One of the best examples we have

seen was a firm that identified risk and reward objectives and provided a detailed framework on their investment constraints. They also provided clear evidence of how the Board engaged with investment strategy, and how NEDs provided strong checks and balances over the investment function.

2. Our proposals also include clear expectations on how firms quantify valuation uncertainty and the potential for volatility. This includes expecting firms to test how investments would affect solvency under stress. Our analysis suggests that only 3 in 10 firms currently mention valuation uncertainty in their Own Risk and Solvency Assessment. We have seen some examples of good practice, however. For example, one firm used multiple valuation techniques when assessing the value of a portfolio of complex illiquid assets.
3. We've emphasised the importance of ensuring that firms have sufficient expertise to understand complex investments. For example, supervisors noted an insurer bringing in external expertise when it was considering investing in new asset classes.
4. We've also proposed that firms manage concentration risk by setting, justifying and operating internal exposure limits for investment. We've been concerned by some firms building up high concentrations of illiquid assets. But setting internal limits is already market good practice. For example, we have seen several insurers deciding to limit exposure to a particular illiquid asset class based on their own assessment that they posed an 'unacceptable level of risk'.

Liquidity risk management

A second - very recent - publication concerns liquidity. We published this morning a new supervisory statement on Liquidity Risk Management for Insurers following a consultation with industry earlier in the year. While this relates as much to the liability as to the asset side of insurers' balance sheets, the work on it has been driven in part by investment trends – increased exposure to illiquid assets – as well as external developments such as generally lower liquidity in asset and asset financing markets.

In our supervisory statement, we've defined key sources of liquidity risk for insurers and expect firms to develop their own liquidity risk management framework and contingency plan; hold liquidity buffers; and test liquidity under stress. We recommend a proportionate approach to liquidity and note that for some firms this is not a major risk. However, for some business models, particularly where firms are using derivatives, we would expect significant attention to be paid to liquidity risk. Our approach to mitigating liquidity risk reflects the approach taken by the International Association of Insurance Supervisors (IAIS), as part of its Holistic Framework for Systemic Risk in the Insurance Sector. The Holistic Framework identifies liquidity risk as a key exposure in the insurance sector that may lead to a systemic impact if left unmanaged; and the IAIS has consulted on changes to its supervisory material aimed at improving insurers' management of liquidity risk.

Investments in income-producing real estate

A third publication due out later this week is an update of our existing supervisory statement on illiquid unrated assets to take into account increasing levels of investment in income-producing real estate. In particular, we are setting new expectations on how firms identify the risks involved in this kind of investment and how they estimate credit spreads.

All three pieces of guidance concern fundamental risk management principles, and how we expect firms to put them into practice. The common theme across the new publications is the need to embed investment activity within a robust risk management framework. Whatever risks a firm faces, they must be identified, analysed, managed and mitigated. We've emphasised the need for judgement, expertise and Board engagement.

Returning to the theme of extremes, we've set clear expectations for how firms stress-test their investments. This should complement the PRA's regular stress-testing exercise where we work with industry to understand issues including sectoral resilience, systemic risk and the effectiveness of firms' risk management. We've developed our stresses to take into account the trend towards illiquid investment, for example this year there is a much deeper analysis of the impact of credit downgrades on Matching Adjustment portfolios.

Overall, we're seeking to provide clarity on what we expect from firms and intend that this will help to encourage consistent implementation of the standards, levelling the playing field to create a more competitive and robust industry.

Part 2 – what's on the horizon?

So far today, I've focused on areas that could be grouped together under a theme of continuous improvement. I'd like to turn now to some that are more green-field, opportunities that will no doubt grow in monetisable value for investment purposes, and the challenges they pose to risk management. The Governor captured the depth and pace of likely change in his Mansion House speech, which called for a new finance to meet a new economy, driven by shifts in climate, demography and technology. Some of these shifts can be seen as a fattening of the tail of existing distributions – the aging population would be an example. Others, particularly relating to new technology, will require new models entirely.

As regulators, we have a reputation for focussing on downside risk. We do recognise, though, that this new world is partly one of opportunity and that businesses will need to respond positively to the changes, as well as managing the risks they pose. Sam Wood's speech on stylish regulation acknowledged this tension and emphasised that supporting innovation need not mean deregulation.

Rather it's about working together to understand the new business models that emerge, and drawing on our experience to ensure that governance and risk management remain fit for purpose. At the PRA we have been working hard to ensure that the regime remains responsive to new firms' business models and new entrants – for example, through our work to develop and refine the UK's new regime for Insurance Linked-Securities, or the launch of our New Insurers Start-Up Unit.

One of the most interesting new sources of risk – and opportunity - is technology. Developments have the potential to affect product lines, business models and, at the extreme, to shift our paradigm for risk management.

Starting with cyber risk, this can be easily understood from within existing business models. As businesses, insurers face the threat of cyber crime. At the same time, demand is growing for cyber insurance, so firms are taking on this kind of risk from their customers. Solvency II does not mention cyber risk at all, so there is a space for firms – and regulators – to fill. But the basic framework for dealing with these kinds of business risks is already well established. And as the regulator we are looking at incorporating this relatively new risk into our existing approach. For now, this means thinking about capital treatment and reporting and working with industry to facilitate a move to more explicit coverage, standardisation of contracts and remove barriers to data sharing.

The bigger unknowns for us are arising from changes in business models. Take cloud outsourcing on which we have surveyed insurers and are currently analysing results. Insurers increasingly use third party data storage and processing, development infrastructure and software delivery. Firms have access to cheaper, more sophisticated IT services, which boosts profits and reduces barriers to entry. But there are also new risks, for example growing dependency on a few large providers. And as with any fast-moving technology there is a skills shortage so it's hard for firms to source the expertise they need to ensure proper governance.

The PRA is responding to this trend and is planning to issue a new supervisory statement on outsourcing in October. Like our new investment risk management publications, this will emphasize the fundamentals of risk management. The supervisory statement is intended to provide a one-stop source of reference on outsourcing and third-party risk management, bringing together previously issued guidance. It also sets out additional guidance on business continuity and exit strategies. At the same time, we're finalising policy proposals to require firms to improve their operational resilience, including making it clear how we expect them to identify important business services on which they rely.

Some technology developments are creating less tractable risks, for example machine learning. We're starting to see hedging models built using neural networks rather than financial mathematics. These models are black boxes, producing results that are fundamentally unexplainable. Traditional models to which we apply risk management principles, are built on known logic and it's possible to determine the key variables affecting results, and sensitivity of the results to changes in those variables. Machine learning poses

challenges for a traditional risk management framework based on identifying and analysing key risks and dependencies. How can a firm's Board satisfy itself of the model's prudence and appropriateness for their business? And regulators are grappling with the question, what does a governance and disclosure framework look like for a model that cannot be explained?

Conclusion

Before I take some questions that I may stand a better chance of answering, I would like to conclude with these remarks.

The principles of Solvency II – a whole balance sheet, market consistent approach to regulatory solvency, focus on good governance – remain valid. Likewise the fundamental risk management principles that insurers have applied since before any form of regulation still hold. Indeed, in a world of heightened uncertainty, the management of concentration risk for example – through diversification of both assets and liabilities, and reinsurance – is more important than ever. Ensuring resilience in a world of extremes requires curious and flexible risk managers and adaptable risk management actions.