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IRM: Putting theory into practice for UK defined benefit pension schemes

Abstract of the London Discussion

[Institute and Faculty of Actuaries, Sessional Research Event, Integrated Risk Management Working Party, London, 20 March 2017]

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The Chairman (Mr G. T. Connolly, F.I.A.): Welcome to our discussion on the paper "IRM – Putting Theory into Practice for UK Defined Benefit Pension Schemes" by the Integrated Risk Management Working Party.

Integrated risk management or IRM has existed in some form for a while. It was known as "a financial management plan" in the 2012 regulator's annual funding statement. Further guidance on IRM was published by the regulator in 2015.

This working party was first set up in 2014, although the paper says 2015. We set it up in 2014 and it was led by a pensions' expert. For various reasons, it did not succeed. The key learning from having a pensions' expert to chair it is that pensions risk management might be new to pensions actuaries and those in the pensions profession, but Risk Management is old hat to others in the actuarial profession. So if you think something is new, go and speak to a colleague in a different area. They are bound to have thought about the same sort of things that you want to think about, but in more detail, and will probably have done it already for many years.

The Regulator's code of practice and their guidance are helpful but only go so far. As Chair of the Pensions Board, it was, and is, helpful to all practitioners to have a working party to put the meat on the bones of IRM to show what it could look like in practice. So the working party was established and I am excited to be here to chair this session.

Before I introduce the opener, a special thanks to Andrew Hitchcox, who agreed to chair the working party for the second attempt that worked in 2015. Andrew is a qualified actuary with over 35 years' experience in the London market. He is chief risk officer and Solvency II program director at Tokio Marine Kiln, one of the larger managing agents of Lloyd's of London. He is also a member of Council and a member of the Risk Management Board, having previously chaired it.

I should like to introduce our first speaker, the opener, Paul Brice. Paul is a chartered accountant, chartered tax adviser and Member of the Chartered Institute of Securities and Investments. He is

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the founding chair of the Employer Covenant Working Group. In his day job, he is Director of Trustee and Client Services for Railways Pension Management Investments (RPMI) Limited, the executive company of the Railways Pensions Scheme Trustees. His role involves leading an employer covenant team which advises the trustee on IRM matters. He has been heavily involved in setting up the trustee's approach to IRM. The scheme has close to 350,000 members, involving a hundred sections and more than a hundred employers.

Paul Brice: I am interested in the integrated funding and integrated risk management of pension schemes. The theme of my presentation is a strategic overview against the backcloth of putting theory into practice.

As I go through this brief presentation, I'm going to try to bring out some practical lessons that we have learnt about the challenges of both integrated funding and integrated risk management. As Gareth [Connolly] said, we have over 100 sections. These are stand-alone self-sufficient mini pension schemes, although the largest one, Network Rail, which is close to £6 billion in size, is quite a big pension scheme in its own right. These sections comprise sections sponsored by everyone across the railway industry: Network Rail, the train operating companies, train leasing companies, train manufacturing companies, train maintenance companies and so on. It is a diverse group of employers. You have small owner-managed businesses at the one end and businesses with involvement with the Government at the other.

Therefore the whole conundrum of how we work to fund the various sections and manage the funding risks associated with them is an interesting exercise. I work for RPMI, the captive adviser, and I work with internal colleagues who specialise in investments, and actuaries, who specialise in pensions policy matters.

I should like to look at this problem through three questions. First, what brings us to integrated funding and integrated risk management? What has changed? Second, in what areas can integrated risk management and funding add value compared to a point solution approach? Third, and finally, I should like to explore the real value of collaboration between employers, trustees and the advisory teams in arriving at some innovative, good outcomes for pension schemes and their members.

Scheme-specific funding is a shade over 10 years old and there has been a huge process of evolution. My profession, the employer covenant profession, did not exist 10 years ago. What employer covenant has meant, and how it contributes to the debate, is something that I would argue has shifted quite markedly in recent years. The business model of a pension scheme is really five cash flows. It is its contributions, its investment returns and investment realisations to meet liabilities to members and the costs of running the scheme.

Those five key cash flows can be looked at independently, but in many ways they are interdependent cash flows. That is where the real value of an integrated funding approach comes in.

Once we start to look at those cash flows interdependently, exploring, for example, how an underperformance or an over-performance in investments might affect a scheme's funding level and what the requirements for cash from the covenant would be, we start to get into a rich debate of different possibilities and options.

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I would argue that integrated funding is the choice the trustees make with the employers about how they fund the scheme, and integrated risk management is the plan that is put in place to deal with off-plan performance. Semantics, maybe, but in practice they are two sides of the same coin.

So where can an integrated approach to looking at these cash flows and their interdependencies add real value? What is the difference between that and a point solution arrangement whereby the covenant adviser provides a covenant assessment, someone else looks at the investment strategy and someone else looks at the valuation of the liabilities.

You get a much clearer view of the dynamics of a pension scheme once you think about all of these things together. I have chosen three effects that are worth pausing on. Sometimes there is a close correlation between the trading performance of an employer and the likely expected return from, say, equity markets or return-seeking assets. Sometimes the correlation may be negligible.

Starting to think about how one of those levers moves against the other, and what that might mean for funding, is crucial, and a theme of the Pension Regulator's IRM guidance.

One thing that is important to consider is opportunity cost. It may be tempting for a pension scheme with an employer with relatively stable but modest cash flows to think about piling that cash into a de-risking investment strategy. But what if the analysis shows that there was a far better opportunity to invest that cash in the business or some other way, possibly with support from a parent company, to facilitate a more on-risk investment strategy? That is one of the matters that the case studies consider.

Finally, when we think of integrated funding, we get visibility on the effects of pensions gearing. By "pensions gearing" I mean a sponsor may be a healthy business and may have generated steady profitability over many years. But if they have an enormous pension scheme in tow, one of the things that you can see, as you stress-test these cash flows against each other, is the impact of a relatively small movement in the pension scheme and the demands that that would place on the employer.

In practical terms, what we have sought to do in RPMI in advising the trustee is to have all of our professionals – investment professionals, policy professionals and covenant professionals – work systematically and in a coordinated way to think about, model and stress-test the different possible outcomes before engaging with the employer community and making our advice recommendations to the trustee.

We do that within a framework. We have a framework for our investments that considers risk, return and liquidity. We have a framework for our covenant that considers covenant strength and likely recovery period. Those are the starting points. Once you have the starting point, it is then a process of iteration and careful thought with the employer and the trustee as to what the appropriate solution is for that pension scheme.

All of this strongly points to effective joint working. Collaboration is central to the success of this approach. That is not just collaboration between employer and trustee, recognising their respective legal obligations; it is collaboration between the advisory groups. Our experiences from the conversations where we put our sections under the microscope and think about the different options and ways in which risk can be protected and managed, are that opportunity cost can be minimised and you can gain some greater shared understandings, creative thinking and fresh ideas. The ideas that come forward are not the preserve of one profession or another; but importantly you have better-informed choices between trustee and employer.

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Finally, given that this is integrated risk management, there is a stronger and actionable platform against which to manage risk. I am not a strong advocate of huge risk management plans with endless minutiae and short termism, and so forth. Once you have a view of what the key risks of the pension scheme are, you understand the financial flows. You are then in a good place to put together a plan that will correct off-plan performance when it really matters.

That can only happen successfully once there is a clear platform of information and understanding between all the parties to enable that debate.

The Chairman: Our next speaker, Marian Elliott, is a director at Deloitte with nearly 15 years' experience in the UK market, advising trustees and sponsors. Marian also sits on the Institute and Faculty of Actuaries Council. Marian will give us an overview of the structure of the paper and the "ten commandments".

Ms M. B. Elliott, F.I.A.: The paper is about how to put integrated risk management into practice. We wanted this to be a practical guide, rather than focussing on theories and principles.

There were, however, ten key lessons we learnt as we went through the process that are worth capturing and could be useful.

The first is collaboration.

There are different angles from which to look at every situation, and without collaboration you will miss something. We were a fairly diverse team. We were immersed in pensions across the team. We also had expertise from outside the pensions field. Going through the case studies, without exception we had missed things in our own silos that were highlighted by socialising the case studies with people outside pensions, people with different skill sets. So, collaboration is essential.

Having objectives was the second thing that we learnt. If you're going to have a risk management plan, you need to fix an objective. What was not obvious was how open you needed to be to revisiting those objectives as you went through the process. The temptation is to set aspirational goals for your pension scheme funding or have some great ideas that are very trustee-focussed.

Down the line in a couple of case studies, we were challenged about the appropriateness of the objective from the sponsor's perspective. Would the sponsor really sign up to that? It is practical to have that discussion early with the sponsor, getting them to the table when you are setting objectives. As you go through the process, whether you are on stage III or you are getting an initial piece of analysis, do not be afraid to go back to those objectives and ask if you are really going to achieve them. Or indeed, could you achieve more? Are you getting some information from the sponsors that there are different ways that you might be able to achieve a better outcome?

The third piece that we found to be important was governance structure. We were working through some practical case studies. We were forced to think about how we would deliver this in practice. It became apparent that without a clear set of roles and responsibilities you run the risks of overlap, fees running out of control, and not having appropriate information being shared.

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Setting the terms of engagement clearly up front and understanding who is going to contribute what to the process is important.

The other piece around governance structure is answering the "So what?" questions. If you do not have the right governance structure in place to act on the information that you are receiving, then all you have done is go through a fairly expensive and extensive exercise without any good outcomes. There has been an explosion of online monitoring tools. You can see what your pension scheme funding looks like at any minute of any day. Has that resulted in better outcomes? Are we seeing pension scheme funding improved as a result? If not, the reason for that is the inappropriate governance structures that sit behind that management information.

When you move forward from having set out the objectives and the governance structure, and have a collaborative approach in place, you come to the analysis phase. As actuaries we should recognise some inherent biases that we have towards data, processing tools and modelling. We forget some of the benefits of having everybody around a table thrashing this out, and the pieces of understanding that you pick up almost incidentally through some of those discussions end up being key to the process.

Rather than putting a lot of value in making sure you have the right tools or you have done all of the extensive modelling that is possible, value those meetings where you have people sitting down and sharing views. Going through that process and developing that understanding of risk for all of the parties that are involved is crucial. So, the fourth commandment is that the tools are secondary to the process.

The fifth commandment is "Covenant is key". What are the key drivers that will make a difference to the outcomes for this particular pension scheme? Too often we focus on a broad overview of the covenant. It may be that we are looking at the covenant over inappropriate timescales. There is maybe not enough understanding of the overall industry perspective. Try to tease out from the sponsor what it thinks are going to be the key drivers behind its business. What does it think the impact of a particular event relating to the pension scheme would be?

Gather that information: people running these organisations know a lot about their industry and about their businesses. While it is useful to get a third-party view from the sponsor covenant, having the employer at the table and sharing that information is valuable.

The sixth one is proportionality, which has been highlighted throughout our regulated guidance. It was one of the concerns. We talked about this paper at a number of events as we were going through the drafting process, and the feedback that we received consistently from other actuaries was this all sounds great for a large scheme with many resources, but is it appropriate for the smaller schemes? What can we do to make it realistic for the schemes that we work with that do not have all of the resources available to them that some of the larger schemes do?

None of this has to be particularly expensive. If you focus in on the key risks and the key drivers behind the performance in your pension scheme, then that might cause you less cost and less management time in the long run because you are looking at a smaller set of key issues rather than trying to take a broad view and sometimes getting it wrong.

Also, now much of the processing work can be cost-efficient. I would challenge trustees and sponsors when they are concerned about the cost of an integrated risk management process to think about

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how much they are spending on things that are not adding value to their pension scheme, and whether their budget can be better aligned to the objectives that they have set themselves.

The seventh is to plan for the unexpected. We are all drilled in “past experience is not a good guide to the future”. We are never going to get this absolutely right. The real value in the discussion is the consideration of what happens if this does not go to plan. What might it look like if it does not go to plan? How off-plan could we possibly get? Then what are we going to do about that?

That starts to help to drill down to what the key risks are. If the answer when you look at what happens if X occurs is, “We can manage that”, then it probably does not need to be number one on your risk dashboard. But if there is something where the response is “this could be catastrophic” or “there is probably an easy way to insure against this and it would not cost us that much”, then that is something that should be looked at.

In terms of the outcome, do not forget the upside, which is number eight. It is dangerous to go down a process where you find all the risks you possibly can and reduce them. Most pension schemes are in a situation where they need to take some risks to generate a return, and as long as that risk is well understood and is being rewarded, then that is absolutely appropriate. There might also be other opportunities to improve the performance without necessarily increasing the risk. So be conscious of the upside possibility and how that might be monitored and captured.

Integrated monitoring is number nine. When you are looking at monitoring information, it should be big picture. The consistent complaint from trustees is they get a piece of paper from over there and get a report from somewhere else at a different point in time; and pulling it all together is not something they can easily do.

But when you have set clear objectives, and have worked through contingency plans with some triggers, then the information provides a clear steer on when you need to act. Here is the metric and this is where we are against that metric, and this is what you said that you would do in a circumstance where the metric was this. That makes it an easy framework for trustees to take decisions.

Again, rather than trying to act with imperfect information against a framework that is not well understood, this gives trustees the facility to be able to take decisions much more quickly, and again in line with agreed objectives that the sponsors have bought into.

That should all result in a simplified valuation process, which is the final commandment. Even with some of the larger schemes that I work with, you see situations where a set of objectives has been agreed, but because they are not necessarily well-defined or not everybody has bought into them completely, you end up starting from square one again when you roll around to the next valuation.

If you can get this right, investment of time will pay off in that the valuation every 3 years should just be a point-in-time recalibration so that you can check whether those objectives are still relevant, whether anything has changed so that you should be making changes.

Those were the “ten commandments”. Chris Ramsey will now put them into practice.

The Chairman: We do not have time to go through all the case studies, so Chris [Ramsey] will cover Case Study A.

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Chris started his career in 2008. He is now a scheme actuary and an associate at Barnett Waddingham's London Office. He also heads up their Pension Protection Fund (PPF) levy consulting team.

Mr C. J. Ramsey, F.I.A.: I will start with an introduction to Case Study A. This is the big picture, and we have not delved much into the finer details. I stress that this is an example and not the right answer of how to do IRM. It is just the process that the trustee, the board and the scheme actuary went through.

The situation is that you are scheme actuary to a medium-sized defined benefit scheme, which has been closed to new entrants for a number of years and has recently closed to accrual of new benefits. The employer is UK-based, in the automotive sector and is part of a larger group. The global parent is a US-based company called Top Co.

We looked at two situations, which we thought would lead to quite different outcomes. The first is where Top Co was not willing to give any sort of guarantee or security for the pension scheme. The second is where it was.

I will take each of them in turn. The trustees come to you as scheme actuary and say they have some concerns about the employer covenant. What should they do? You ring up your covenant adviser for advice to give to the trustees. This is how the advice goes.

There has been a gradual decline in the UK business over time. The trustees are aware of that but the covenant adviser sets that in stone. The company is currently paying £5 million a year of deficit contributions into the scheme but could afford, if it needed to, up to about £12 million a year. But its balance sheet is weak. It does not have many unsecured assets that it could give to the pension scheme.

The report also talked about the future of the covenant, not just what the covenant is like today. For example, on investigation they discover that Top Co is trying to relocate some of the car production from the United Kingdom to a different overseas company in 6 years' time, and that is one of the more profitable parts of the business. There is some question mark over the strength of the covenant after then and, in general, there seems to be a risk that all UK car production could stop in the future.

So this is a gloomy picture. In your advice to the scheme you say that, on the existing funding basis, the scheme is about 80% funded. On a best estimate basis, it is 100% funded and on a solvency basis, 60% funded. This is where you have an investment strategy of 50% in gilts and 50% in equities.

After advising the trustees on this, you say that you need to set an objective. You have to have a plan for what you can at least try to achieve. It can be modified as time goes on.

After some discussion, the trustees agree to try to get a buy-out by 2030. They expect that there is going to be limited support beyond 2030 from the UK sponsor. It is not necessarily saying that that sponsor is going to be insolvent by that point but it might not be able to cope with having a large pension scheme. It also happens to be a time where the scheme is going to be 100% pensioners with no more deferred or active members.

The first question is: is this objective achievable? The projection of your scheme funding level in line with prudent returns shows that you expect to get to 100% funding on a scheme funding basis by

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2030. That is great. You would expect to get more than that because these are prudent returns. Actually, you might expect to get to your solvency target by 2030.

However, you are taking many risks in that process. This is not something that the trustees had appreciated before. You illustrate to them a rough funnel of doubt as to how risky their investment strategy is and they are quite taken aback by this. If they kept on investing 50% in equities, they could be as high as 250% funded by 2030 or as low as 50% funded and very far away from the solvency target.

It is not just a matter of the pension scheme. This employer has signed up to pay £5 million a year in contributions. It can afford that, but in 6 years' time there may be more problems, and affordability has reduced. It is looking at a pension scheme where there is a lot of risk in the level of contributions that it is going to have to pay.

In 6 years' time there is a decent chance that the employer will not have to pay anything. That is great from the employer's point of view. But there is a 25% chance that they will have to pay more than £10 million a year – more than double what is being paid at the moment. That is for an employer that is going through a process where it has just lost one of its biggest profit drivers.

So the trustees decide they need to look at some different strategies here. How do you go about assessing those strategies? You have to take into account the objectives that you set yourself and the constraints that you are under. As scheme actuary, you go to them and you suggest three things to look at.

First of all, how likely are you to reach this solvency target? It is not just about the likelihood of reaching the solvency target, though. It is about how badly this could go wrong.

It is not just about 2030. You have to get there first. What is happening with this employer in 6 years' time? Is it going to be able to pay these deficit contributions? That looks like a major constraint when looking at this situation. You also want to look at a reasonably likely range of contributions in 6 years' time.

For example, we may look at the current strategy and then compare it to an alternative. That alternative might be to increase the contributions from the current £5 million a year to £7.5 million a year and, at the same time, reduce the equity content in the scheme by about half.

So what does that look like? Of the three measures, the first one, the chance of getting to your target, has gone up. That is great, but it has gone up by only 5%. It has increased the contributions into the scheme by 50% but the chance of getting there has gone up by only a little. You have reduced the upside by reducing the equity content in the scheme.

The worst projected solvency deficit with the existing strategy is pretty bad at £150 million, which is completely unaffordable for the sponsor at that point. But by using the alternative, it is down to £40 million, which is a good situation for the trustees to be in.

The contributions for the employer in 6 years under the existing strategy can be anything between 0 and £11 million a year – quite a different outcome. On the revised one it is a much narrower range, something between £3 million and £8 million. But you have to take account of both sides of this. You have cut your worst outcomes but you have lost the positive outcomes as well.

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So, after much discussion and debate between the trustees and the employer with input from you, you reach a settlement. What does this look like in my completely made-up example?

You maintain the existing funding basis. There is no real reason to change back. What you are really focussing on here is solvency. The company agrees to pay more for the first 6 years because that is when it can afford it, but pay less thereafter. Also, the trustees get a commitment to receive a share of additional contributions if the employer were to do better than expected.

On the investment side, the trustees do de-risk the scheme but not to the degree that they had considered before because they want to keep some of that upside potential in the scheme and so reduce equity content to 33% of their assets.

The trustees also put in place a monitoring framework. Things do not go as expected, unfortunately, so you have to monitor this over time. What three things are we concerned about as advisers to the scheme? One is de-risking opportunities. The second is that we want to have a framework that is sustainable in an ongoing situation so that the deficit contributions are affordable by the employer. Third, we want a solvency situation that is not too bad.

How are we going to monitor this? We need a metric for the scheme. For de-risking, it is solvency level versus expected. For ongoing sustainability, it is some sort of measure of what your recovery plan contributions are based on your current position in the scheme and not what they were before. For the solvency scenario, it is just the solvency deficit.

That is only half the picture. We are talking about integrated risk management. This only considers the scheme; it does not consider the employer at all. It does not just matter what the deficit contributions look like if we do a valuation today; it also matters what the employer could afford. We need a metric for the affordability of the employer.

Your covenant adviser says EBITDA (earnings before interest, tax, depreciation and amortisation) would be a particularly good metric for this employer, for example.

On a solvency situation this would be the same thing. The solvency deficit is interesting and if that is going up you should be concerned. However, just because it is going down does not mean that everything is fine because the strength of your employer might also to be getting worse. You need to make that comparison.

It is not just all about financial metrics. There is also additional monitoring that should be done. The trustees and the employer agree that they will talk about covenants on a 6-monthly basis to make sure that everything is fine and everything is in the open.

The trustees and the employer agree that 6 months is not really enough. A lot can happen in 6 months with the business, so they also agree that the employer will let the trustees know if there are any serious things that are going to change in the scheme; for example, a change in the employer that will affect the scheme, dividend payments to the global company, a restructuring, or granting additional security or assets to a third party.

What do the trustees get out of this? What do the members get out of this? They get a reduced level of funding and investment risk in their scheme. They have maintained a decent chance of

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achieving their long-term objective. But they have reduced the potential upside from investing in equities.

From the UK business point of view, it has increased its short-term cash requirements, which is not great, but it has reduced the chance of having to pay unaffordable contributions in 6 years' time. It just cannot look at the short term. It has to consider the longer term as well.

That is the main scenario. In the alternative scenario, the global parent is willing to offer a guarantee to the UK pension scheme. In this case, the trustees will happily take more investment risk, given a stronger covenant and will happily keep contributions lower. That is the offer that the trustees make.

Your covenant adviser says that actually the parent is not that fussed about the UK company. It is relevant, as the main covenant you are getting is from Top Co. So your attention changes to the global parent. The covenant advisers say this company is stronger, it has better long-term prospects, it is geographically spread and it is growing.

It says if the worst-case scenario occurred it could probably afford only about £200 million on insolvency.

You discuss the objectives for the scheme in this context and you decide that you do not need a buy-out by 2030, but you would like to be fully de-risked by 2030 because that is when you have only pensioners left. You would like to do that without reliance on Top Co for any more than, say, £180 million, a little less than what they could afford.

You then do some analysis. Based on this strategy, what does this look like? Looking at the solvency deficit, what does this reliance on Top Co look like? From the funnel of doubt on the solvency deficit you can see it is not likely that reliance on Top Co will go above £180 million any time soon. So you are happy to fund this strategy.

In this alternative scenario from the trustees' and members' point of view, you have retained more risk in the scheme, but you have improved security for members because you have a much stronger employer.

The UK company has maintained its cash requirement, so it is obviously happy. It does have a higher risk of greater contributions later on, though, and there is no getting around that.

From Top Co's point of view, it has a more profitable UK business because it has to pay lower contributions. It may have come under pressure to bail out the UK pension scheme in due course anyway, so maybe signing up for this guarantee is not losing that much. There is also the secondary benefit of having a reduced PPF levy.

That was a whistle stop tour of Case Study A. It is just an example of an IRM process in action.

The Chairman: That particular example was drawn up long before any of the car manufacturer stories that you may be hearing in the press at the moment. Any similarity is purely coincidental.

We are now open for questions.

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Mr J. G. Spain, F.I.A.: I want to commend the working party for their enthusiasm and hard work. I just feel that it has been wasted because it is based on a mark-to-market approach. The evidence available academically is that mark-to-market does not work for the long term. If you assume that today's conditions, whenever today is, continue forever, you are ignoring the volatility that is there. We have seen this over the last several years.

If you move to a cash flow approach instead, one of the problems that actuaries have is that we are still being expected by the outside world to use discounted cash flow capital numbers. However, we should be using stochastic cash flows so that we see what is going on and capture the volatility.

I should have liked to have seen the profession taking the opportunity that has just been given to us by the Department of Work and Pensions in the consultations to think what can we do better? I am not talking about going back to the 1990s, 1980s, 1970s or anything like that. I am talking about going forward and taking what was good about the 1980s and the 1990s – and there was some – and trying to make it better than what we have at the moment.

I think that what's proposed in this paper is a cul-de-sac; but if it works for some, that is fantastic. I should just like to see a bit more.

However, thank you for doing all this work.

Mr T. W. Keogh, F.I.A. (responding): One of the things that we said at the start was that we wanted to discuss the world as it currently is rather than as it might be. That is a serious point in that the system is regulated in a particular way at the moment which has strengths and weaknesses. We seek to provide some tools to deal with that. It may be that a better system comes along. The scope for an improved system is a good debate to have, but that was not our remit.

Ms Elliott (responding): I also think that this is applicable to the environment which you describe. It comes back to setting objectives. There are a number of employers for whom removing this risk from their balance sheet is relevant and so marking to that objective is the right thing to do.

There are others where the size of the sponsor relative to a small pension scheme is such that you can take a much longer-term approach and there is nothing within IRM that says you cannot look at a cash flow type model and manage your cash flows as and when they fall due and timing the returns from investments to meet that. As long as you have the sponsor sitting behind that risk, that is fine. The reason that you come back to this mark-to-market approach is the risk that the employer becomes insolvent.

Mr Ramsey: If you have stated objectives to get to buy-out, then mark-to-market is very relevant. If you are taking a longer-term point of view, then I can understand where you are coming from. However, if your objective is buy-out, then you have to because that is what insurers do.

Mr Keogh: At least three (and possibly four) of our case studies, I believe, have stochastic models in them.

Mr L. T. Ma, F.I.A.: I do not necessarily agree that our approach for applying IRM is equivalent to assuming that current conditions will continue indefinitely into the future.

Most of us will be aware that recently in the press there has been quite a lot of talk about the deficiencies of a market-based approach, and whether that means we should be going back to

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assessed value or something slightly different. From what I have seen the alternative approaches seem to be just a different way to describe essentially the same problem; for example, saying that discounting is old school and that projecting forward is the future. To me they are just the same described in two different directions. In the press, it seems to be claiming that looking at things in a different way may make the problem go away or may make you realise that there was not a problem to start with. To me that seems somewhat magical in the way that we have many schemes that probably are not as well funded as they could be. They are taking a fair chunk of risk with an uncertain sponsor covenant. To say that you can look at it in a different way and maybe all realise there is not that big a problem – I have not seen that in the cases that I have worked with.

Mr C. Patel, F.I.A.: I was a member of the working party and am also employed at the Regulator, and I can speak for the Regulator when I say that mark-to-market is relevant in certain circumstances and not in others.

If you disagree, then consider a mature scheme which is underfunded. The pensioners need to be paid now so some of the scheme assets are being transformed into cheques for them in current market conditions. Further, the pensioners need to be paid in full despite the scheme's underfunding. Therefore, in a prolonged period of poor market returns the scheme could easily use up a significant part of its asset base to honour its commitments to the pensioners, leaving the scheme even more underfunded.

Now, if you tell me that this scheme can ignore current market conditions and pretend that it still has say another 20 years to recover its deficit then I would suggest it is well on its way to running out of money without an additional injection of funds.

My point is that many of our pension schemes are in this state already and many more could be heading in that direction if they are simply taking the view that market conditions do not matter when it comes to setting their funding plans.

Mr Spain: Mark-to-market is not always wrong. If I gave that impression, I apologise. You can only go off market if you have a decent covenant and long enough to use that covenant. So you are probably talking about 15 years.

Chinu [Patel's] example would not be that. You would have had to have been looking to mark-to-market just to match the assets as best you can. Not all schemes have been or are still in that situation. Going off-market can work in some circumstances, but it is not allowed by the regulator. It is an opportunity for the profession to think again and say that something else might work well.

Mr J. R. Manion, F.I.A.: My experience has been that collaboration is much easier when there is a lot of money around. When there is not, or the company is under pressure, collaboration falls away or it never existed in the first place because the objectives are probably incompatible to start with.

I am questioning whether collaboration is the best route. Sometimes you have to decide that there is going to be negotiation and the best way for whichever party you are advising to get its objective met, you have to start from that point of view. You may legally have to start from that point of view in a number of circumstances.

In Case Study A, if I was a union representative on the trustee committee I might say, "You are going to have to pay in the whole £12 million a year or more unless you promise to keep the plant open in

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six years' time". That would change the whole landscape of my covenant. In other words, it is going to be very expensive for them to shut the factory.

Have you any views of which professions best deal with the negotiation side?

Ms Elliott (responding): Starting off trying to collaborate and going through the IRM framework helps you to identify the potential areas of stress where the two sets of objectives might diverge. That is important.

By collaboration we do not mean that everybody gets on and has the same objective and there is never any tension. It does mean that you are quite clear on where the specific points of difference are rather than trying to negotiate everything that is on the table in a number of situations. If you look at it through a slightly different lens you find that things that might look good for the trustees are in practice quite good for the company as well. The example you gave of: "Pay us everything now or promise to keep the plant open for six years" may not be that feasible and may not be great for the longer-term recovery and what you are going to get out of that employer.

The same applies to the relationship with Top Co. You may never get to that guaranteed scenario if you start with, "This is our position and you are going to have to talk us down from this". Collaboration still plays an important part even if you do end up in a negotiation situation. You might at least be focussing on the key areas of negotiation.

In terms of who is best to do it, almost every profession is a mixed bunch and it is hard to stereotype and to say you should get your lawyers in because they are going to be great at negotiating the finer points or you should get your actuaries to do it because they understand the technicalities and will be able to baffle the other side. It depends on which points are most key and who has the knowledge.

In some cases it might be that it is not one of the advisers but it is one of the trustees having a conversation with the company. In some cases that negotiation may need to be multi-pronged. You might need to take it off-line and have somebody from the trustees talk to a representative of the company before the meeting. You may then have two actuaries discussing ahead of time what needs to happen. Working out where the key points of difference are ahead of time and who is best to try to sort them out is probably your best bet in terms of the negotiation process.

Mr Brice (responding): Interests can be asymmetric and even partly confrontational, but that is the reality.

The starting point of a common platform is information that people can use to frame rational economic choices. When information is presented in such a way, for example, the joint view of covenants, investment professionals and actuarial professionals, it gives an anchor point for an economically rational discussion. Then you can have economically rational choices. To take the example that Chris [Ramsey] just showed, it may well be the case that I could say as a trustee, "We are prepared to allow you to go more on risk and on an expected returns basis. If that is the funding basis that you use, the deficit will reduce and the employer will need to put less cash into our scheme, all other things being equal. But you are going to have to give us a guarantee".

Once you start thinking in terms of those rational economic trade-offs built on your platform of information, IRM is a valuable process. We all appreciate that some situations just get stuck for

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weeks, months or years. But, just by having that platform upon which to have some rational and open discussion, often one finds that the information is quite illuminating for the company as well as for the trustees.

Mr J. C. Wintle, F.I.A.: Like the previous speaker, I want to explore a little more the process of reaching agreement and collaboration. One of the things Marian [Elliott] mentioned was simplified valuations. In theory, everyone would be pleased with not having to battle through 15 months' worth of discussions every valuation cycle. However, in practice being able to do that appears to be predicated on having had at the previous valuation a discussion not only about how to wrap up that valuation, but how to wrap up all conceivable future valuations.

My experience has been that it can be quite difficult getting the two different parties, the trustees and the employer, or even three different parties, depending on the provisions in the rules and whether the actuary needs to give an underpin, to agree anything for a single valuation – this is challenging enough. How do you get them to agree how they are going to agree all future valuations?

The comment that Paul [Brice] made about the economic reality and the rational conversations based on the charts that Chris [Ramsey] showed us earlier, is great in theory. I would love that to happen but I do not think that any of the analysis that Chris showed was objective fact. It is all subjective, based on the underlying assumptions. In my experience, trustees and employers can have significant discussions and disagreements about the underlying projections used. Having that rational discussion about risk trade-offs is impossible if you do not agree with the underlying framework.

That was a long-winded way of saying that I would love to have those future simplified valuations, but the challenge that needs to be resolved is how do you get the different parties to agree in advance all the future details of all those different objectives and how are they would react to all future situations?

Any hints or tips that you can give will be greatly appreciated.

Ms Elliott (responding): The answer probably comes back to the commandment to plan for the unexpected. We are not saying that you need to tie down all the details of every future valuation and have them fully agreed up front.

What do we do when things do not turn out as expected? What are our objectives? If we are moving away from them, what is the plan for getting back?

None of us believe that you reach a valuation date and it is just a tick in the box, you report to the regulator and it is all fine. Things will have changed during that time. I hope that, within an IRM process, you will have dealt with that by the time those things have happened rather than having a backlog that you are trying to work through when you hit the valuation date, where it all comes as a big surprise.

The reality is that things are more difficult in practice than they will be in this theoretical world. If you can get some clear principles agreed that everybody signs up to and can work towards, then you will remove some of the contentious issues that happen when there is a surprise, or people see a result that they were not expecting, and you have to start from square one as to what do you do about that.

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Mr Keogh (responding): I agree with that. Also, it is not necessarily appropriate to worry too much about all the details of the next valuation, but it does help if you have got to the bottom of what the important moving parts are. They probably will not change.

We have hardly mentioned in the paper setting the technical provisions because it is not the most important thing in most valuation negotiations. The parties may feel obliged to spend a lot of time on it, but is it a driver of the outcome? Or will it always be about how much cash flow the employer can realistically afford? If so, the fact that everyone accepts that is a step forward, even if there will have to be a haggle over the presentation in the future.

Mr Ramsey: Yes, I agree with that. Picking up one point you said about the analysis, analysis cannot give you an answer. It can aid a process but the best way of getting to an answer is to have a discussion and to think about things broadly.

The analysis I showed is a way of helping you do that, but it is by no means all of the process or even the most important part.

Mr S. P. Rees, F.I.A.: There are a couple of things I have noticed that often seem to happen in practice. One is that I often start a valuation process by trying to tease out what sort of a relationship there is going to be between the trustee body and the employer.

Nearly always everybody starts off saying it is going to be collaborative and consensual. About half the time that is true. In the other half of the time, it turns out about halfway through the process not to be true at all. By that time often you find there is asymmetry because the trustees have a much more open style. They are more open with the way that information is shared compared with the way that an employer might conduct its business.

So, in those halves of the cases that do switch from collaboration into negotiation, suddenly the trustees are in a difficult position compared with the employer. That is an unhelpful trend that it would be worth doing something about if we are trying to change the way that the system will operate.

One other point is that I am conscious that we have a slightly self-selected audience here because we are all the actuaries who are interested enough in the subject to come along to this discussion. The reality is that many of the decisions are going to be made by trustees and there is much work to be done in somehow engaging more trustees in the whole process rather than just interested actuaries.

There is even more work still to be done to get employers to engage properly and to be able to influence the way that employers approach this whole subject. I should like, if it is possible, for the working party to develop into those two areas about when collaboration turns into negotiation and what to do about it, and how to get the real decision-makers, as opposed to the advisers, properly engaged in the whole process.

The Chairman: The profession is keen to make the most of this report. Maybe it is a case of first of all speaking to actuaries and then whoever else we can speak to about it. It is a good point. How do you get trustees and sponsors involved? Tim [Keogh] or Chris [Ramsey], would you like to comment?

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Mr Ramsey: On the second point, I think it is about focusing on the big picture. We, as actuaries, like technical detail about what mortality assumptions to use and whether or not to use an equity risk premium, whereas, taking a step back and thinking about the big picture and not worrying so much about the minutiae can help trustees and employers get engaged, to forget about the technicalities and focus more on what is really important to the scheme.

Also, there is a challenge for us as a profession to be able to explain details in a simpler way, and not a very technical way, just getting over the key points in the discussion.

Ms Elliott: I am seeing more engagement particularly from employers and the risks that they see their pension scheme poses to their business. That is probably to do with the increasing size of the deficit, but also the fact that that pensions have been in the press so much. As well as the risk disclosures that are having to be made, we are seeing employers more engaged with the valuation process. That probably has a knock-on effect on the engagement with trustees.

We take the point that there is more needed in that area, particularly around the governance framework. You can do a lot of work, but if you do not get to the right outcomes, or if you are not getting to the position where people can take decisions and take action to improve the outcomes, then you are wasting time. Engagement is critical.

Mr F. N. Fernandes, F.I.A.: Just looking from the outside in and picking up on Stephen [Rees's] points about collaboration, is there something more that the profession can do about linking up the investment side and the actuarial side before we even talk about links to covenant? There are attempts at collaboration between the covenant advisers, the investment consultants and the scheme actuaries but, in my experience, there is still often a big gap to be bridged between the scheme actuaries and the investment consultants.

For example, a scheme might be running a Liability Driven Investment hedged asset strategy where the reference curve for liability cash flows might be swaps. However, I still see many actuaries on the liability side using gilt curves to value the liabilities. To the consternation of many, including informed employers and trustees, that approach introduces basis risk.

If the two sides (actuarial and investment) talked to each other more, that discrepancy would be addressed quite early.

Mr Ramsey: From my perspective, we are quite good at engaging actuaries and investment consultants. There is a lot more work to be done on the covenant side. I agree that it is important, otherwise your investment strategy is going off in one direction and your funding strategy is going off in another direction, which is a recipe for disaster.

Ms Elliott: Just to be clear, we do have a couple of investment specialists on the working party helping us with the case studies. You make a valid point. It is important to have that collaboration. We do recognise that.

Mr Keogh: I offer a challenge to those in leadership positions of firms that have both investment and scheme actuary operations and treat them as two separate tribes that develop different ways of thinking. We ought to improve the linkages between their approaches.

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Mr Ma: Yes, I agree with linking the funding actuarial side and the investment side. The general principle that I go on is if it is a good, sensible decision on the investment side, then it should be good news on the funding side. In other words, you do not want to punish someone for taking an investment decision just because you happen to be looking at the liabilities in a particular way, which is the same way as you looked at them 3 years ago, which is the same way as you looked at them 6 years or 9 years ago. Particularly with liability-driven investment and hedging, because of the way you happen to be looking at the liabilities, hedging may not look like a particularly good idea even though you are removing risk, almost leading to an unfavourable outcome in a way.

That is partly because of different methods of funding, particularly whether you are looking at your asset returns relative to liability returns, or relative to other things like pension increases and so on. I agree with the importance of joining the two together.

The Chairman: I will ask a question of the working party. The green paper was published earlier this year and there were quite a view concepts in there, some of which might be ideally suited to an integrated risk management framework. Have you thought about how any of this analysis might be different for, say, a stressed scheme – one where conditional indexation might be allowed in future?

Ms Elliott (responding): My case study was quite close to that. A month before anything appeared in the press recently, we had an example of an employer who was not able to support the pension scheme and it was a decision as to what the investment strategy behind that might look like.

Again, it comes back to the framework for taking decisions and setting objectives. If you have a clear objective, you just add in some additional levers that you might be able to pull into that discussion. You then have a good framework for considering that if you pull a certain lever, what that does to your chance of achieving the objectives.

You can take those rational economic decisions rather than having a knee-jerk reaction or dealing with things on the fly without that clear framework in place.

Mr Keogh: The other thing that is important is to facilitate the collective understanding of what the big issues and the moving parts are. That is even more important in a defined ambition scheme. Defined ambition turned into defined benefit because nobody understood the distinction, so if we are going to go back to operating a defined ambition mode we need to have a discussion around what the key moving parts are and who is trading risk with whom.

Mr Patel: I would say that it allows you to look at potential solutions in a different light if you look at them in an integrated manner. If the proposition is that schemes with virtually no covenant ought to be consolidated into one big fund, then we can try to capture the benefits of the investment and administration efficiencies.

The IRM framework allows you to examine the new moving parts, the new issues, within that context. So this framework is ideally suited to changing strategies. None of these funding investment strategies is uniquely defined. Therefore a little tweak here or there on funding or investment leaves you asking what the outcome would be 15–20 years hence. Does it take you from a bad place to a good place? That is what IRM will, it is hoped, show you.

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Mr Keogh (closing): My role is to summarise the outcomes of this meeting. I will not respond to all the comments but I will cover some of the broad themes.

For me the most important of the "ten commandments" is number four: the value is in the process. That is illustrated by the debate that we have had. There are many points that we, as experts, can become bored discussing because we have discussed them before, maybe in other situations. However, all the various stakeholders involved have not necessarily had that conversation, so it is important to go through these tensions and to work through to what is really important. There is not a substitute for it.

We found that, as we developed each of the case studies, we went through the process and the issues were often totally different for different schemes. They are even differently presented.

We had a long debate about whether we should put them in a standard format or have the same metrics.

We concluded this missed the point – it's essential to identify the right presentation and metrics for the particular scheme. I hope that you find the worked examples for the case studies useful but it is more likely that you will mix and match pieces of them rather than say, "That Case Study C is fantastic and is what I need for my clients".

Another issue that is important is proportionality. In my experience at the Pensions Regulator, we saw lots of work that had been done for billion-pound schemes with million-pound budgets. To some extent the work of the working party has been to take that intellectual capital and recycle it.

But the real challenge is for the smaller schemes. The median scheme was between £10 million and £20 million in size, depending on what you measure and when you measure it. For them it is crucial not to do analysis for analysis' sake, but only to analyse and monitor things that really matter, and ideally to use information and analysis that is already there. Particularly, if it is on the business side, the chances are that there will be a lot of business analysis already. So, make use of that rather than creating new analyses.

It might also be that scenario planning is more useful than stochastic modelling – five versions of the future will be enough to understand what is really important rather than feeling that you have to do 1,000.

There was a lot of debate around what collaboration means and that it is fine so long as it lasts, but it breaks down when there is no money. I hope that we have illustrated that, even if there has to be hard negotiation, at least we can dispense with many of the things that are not important. That was the purpose of Case Study C, which was based on the scheme being largely the employer's problem and thus theirs to solve, subject to due diligence by the trustees.

That in particular might then help with consistency between valuations. The point was strongly made that you cannot expect to define exactly how the next ten valuations will be conducted, and it would probably be a mistake to do so because the world will not be as we have assumed it. If you get some idea of what is really important, it becomes less of an event and more part of the process.

The analogy for me is running a business. You have a business plan and you monitor the business. That is a permanent process. At the end of every year, the auditor will come in and check the accounts. That may lead to changes in how you run your business. But the business plan is the driver.

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Our model of how a pension scheme runs is the same, that there is a plan which describes how it works and then the valuation is part of the audit process.

There was a lot of discussion here on the education of trustees and employers. That is probably the job of the people in here. There is only so much one can do by way of general education. Ultimately, employers and trustees are individuals and need to spend quality time being educated.

I was interested in the discussion at the beginning on mark-to-market. I hope that it was clear that mark-to-market has its place particularly until such time as we come up with a better approach upon which everyone can agree. I agree it is not right just to look at it in today's terms. In most of the modelling that we have done we have tried to focus on what the position is in X years' time, when you have to transact in the market, and what is the range of possible market situations. That is what really matters.

Finally, I want to make a point on actuarial leadership. Who should lead this work and how does it fit in with the role of the scheme actuary?

The working party was quite agnostic on who should do it and who should formally employ the doer. The important thing is that it gets done and it gets done well; and for the whole thing to be done well it involves the input of many different parties.

I do think that actuaries are pretty well-placed to be the people who pull all this together. Every scheme should have a controlling mind, the person who gets how all these pieces fit together and can explain it. That might be a trustee or it might be any of the advisers.

Parliament did say one of the few advisers you must have is a scheme actuary. They probably thought that that would be the financial person that made sure that the financial strategy of scheme worked. At the risk of upsetting non-actuaries who do this job pretty well too, I would suggest that everyone here should grab the opportunities to lead in this area because both pension schemes and the profession would be better for it.

The Chairman: To echo the comments about taking this forward, there will be things in the paper that are relevant and you can use with your clients.

It remains for me to express my and all our thanks to the authors, the openers and the closer, and all those who participated in the discussion.

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