Transcript

Capital Markets Event: Credit Management June 2017

Tuesday, 13 June 2017

Jeff Davies:

Slides 1-2: Good morning, everyone. Welcome to our Capital Markets event, focused on our management of our credit portfolio in stress scenarios. This builds on discussions with many of you, and following requests at the full-year presentation. Since I joined L&G in March of this year, I've been very impressed with our pricing discipline and rigorous approach to risk management, and I look forward to sharing with you why we have such confidence in the strength of our balance sheet as a result.

Slide 3: Our usual bits of housekeeping, here are the normal, forward-looking statements. Switch off your mobiles, (unless you're going to tell us the Lions score), and if there's a fire alarm, the home team will shepherd you downstairs.

Slide 4: The purpose of today is to cover how the £2.7 billion credit default reserve is calculated, explain the robust way we manage credit, demonstrate how our business will perform under a number of stress scenarios, and how our risk management processes work. I'd like to thank several of this audience for contributing their thoughts on what we would like to hear today.

So, ultimately, we will show that our financial position is resilient in extreme credit scenarios. In addition, we'll cover a brief update on the business performance, year to date.

Slide 5: So this is the agenda for today: as well as myself, you'll hear presentations from Kerrigan Procter, our CEO of LGR, and Simon Gadd, our Group CRO, before a Q&A session at the end.

Slide 6: So, moving on

Slide 7: I thought I would give you a brief overview of the performance of our key metrics, and update on our performance this year, and a reminder of LGR's results, just for context.

Slide 8: You'll all know these, from the year-end, but I thought it was worth reminding you. We had a record year as a result of our focus and excellent execution, leading to 17% growth in EPS and 19.6% ROE.

LGIM continued to grow, especially at a pace in the US.

25% growth in annuity assets underpins our market-leading position in pension risk transfer, which we are starting to replicate in the US.

We've been voted the Best Lifetime Mortgage Lender at the 2016 Equity Release Awards,

and have the number-one franchise in UK retail protection, with a 24% market share.

Slide 9: You'll have seen, from this morning's announcement, that we've made a great start to 2017, with all our key divisions performing strongly.

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LGR has written over £1 billion of PRT, and has a current UK pipeline of £12 billion.

Individual annuities have had a great start, up 120% on this time last year, and we've written £360 million of lifetime mortgages already, up 90% on last year.

LGIM is now over £950 billion of assets, with good inflows.

LGC is well on its way to meet its full-year realisation target of £250 million, and has reinvested £138 million.

And LGR UK has shown good growth in its premiums, while the US has risen to the second-largest term assurance provider through the broker channel.

Slide 10: As you saw from last month's announcement, we have a strong capital position. Our Solvency II surplus increased to £7 billion, up £1.3 billion, since the year-end, coverage ratio of 188% decreasing to 180% after payment of the final dividend.

Slide 11: And on to Legal & General Retirement, to give context to the credit discussions. Last year was a record for both profitability and new business sales, and all of this was in the new regulatory capital regime, delivering double-digit growth in our core KPIs.

Slide 12: This slide illustrates the seven different sources of profit LGR has had in the last couple of years. You can also see where we have chosen to reinsure longevity risk and where we have retained it.

We're very confident that this business model will continue to result in strong earnings growth and cash generation in the future, and a large part of that comes from the careful management of our asset portfolio, backing those annuity liabilities.

And with that, I'd like to hand over to Kerrigan, who will take you through the management of the credit portfolio and the impact of the stress scenarios.

Kerrigan Procter:

Slide 13: Great, thank you, Jeff. Good morning and welcome to everybody.

Slide 14: I'd like to spend the next 15 minutes on LGR's credit portfolio, and specifically the mechanics behind LGR's £2.7 billion IFRS credit reserve. I'll start with a few comments on asset liability matching, then cover our approach to managing portfolio credit risk, and LGIM's approach to credit portfolio management. After that, I'll cover the credit reserve mechanics with a few examples, including a historical scenario, and show the impact on the Solvency II balance sheet in those scenarios.

Slide 15: Our starting point is our liability cash flows, so our projection of how much we expect to pay out in pensions, in each month and year, in the future. Since our primary focus is on the IFRS balance sheet, we project

these pension payments out using our prudent IFRS view of how long people will live. We then construct our portfolio of physical assets, with the aim of our asset cash flows exceeding pension payments in each year.

In practice, our investment choices mean we move away, slightly, from precise matching of physical asset cash flows with liability cash flows, as shown in the chart. We then fine-tune residual mismatches, using swaps. This is for a number of reasons. For example, many define benefit pensions in the UK are inflation-linked, but the supply of inflation-linked assets with the right credit characteristics is limited, so we will often use fixed-rate assets with inflation swaps; or there may be limited investment choices at longer durations, and we will use interest-rate swaps to match interest-rate risk precisely, across the curve; or we may see benefits in sector and issuer diversity by investing in US dollar-denominated, or euro-denominated assets, and we'll use cross-currency swaps to hedge the FX risk.

Our portfolio of swaps is diversified across counterparties and daily collateralised. Our main residual risk, therefore, is that the asset cash flows are not paid as expected, in other words, we suffer losses from credit defaults. So precision around cash-flow matching needs to go hand in hand with a focus on managing portfolio credit risk.

Slide 16: The portfolio of assets backing LGR's promises to pensioners is a globally diversified investment-grade credit and real-assets portfolio. Our main defence against defaults is the diversified and defensive nature of the portfolio, combined with LGIM's market-leading fixed-income expertise. I'll come back to that, shortly.

In addition to that, we are prudent. We deduct a prudent margin from each cash flow, in case of defaults, as illustrated in the graph. At the end of 2016, the present value of these haircuts to the asset cash flows summed to £2.1 billion. The size of this reserve is based on analysis of historic defaults, as applied to our actual portfolio with a prudent buffer to allow for how default rates could develop over the long term. We have a further £0.6 billion held as an additional reserve to absorb short-term shocks.

Slide 17: The credit reserve will roll off, over time, with asset cash flows, but will be replenished with new business reserves. The present value of the reserve will also change with market conditions. The chart shows how the credit reserve changed over 2016, for example.

Slide 18: We have a defensive and well-diversified asset portfolio. The portfolio has an average A- rating, with over two-thirds of the portfolio A rated or better. Over half the portfolio is invested in government bonds, utilities and infrastructure.

We have £7 billion alone in gilts.

We currently have less than £2 billion in bank debts, including negligible sub-debt, £2 billion in energy, and nothing in European peripherals.

As an example, we estimate that around half the investment-grade energy sector in US dollar and sterling denominated bonds would need to default before default losses would exceed our short-term credit default reserve.

However, the diversification by sector is only part of the overall picture. LGIM's mandate and expertise also forms a part, as does the second-line risk oversight, together with the risk limits around issuer and sector that Simon Gadd will cover later.

Slide 19: We think the alignment of LGIM's mandate with LGR's objectives is particularly important. The mandate was one of the first true buy-and-maintain credit mandates in the UK, when it was introduced in 2010. It allows LGIM to express its views on credit and credit concerns at the defensive end of the active fixed-income spectrum in a low-turnover portfolio that is matching-adjustment-compliant. The primary objective of the portfolio manager is to reduce risk without reducing portfolio yield.

Portfolio risk is measured by the default risk provision which is a probabilistic measure of future defaults. Portfolio yield is measured by asset duration time spread over LIBOR. Both measures are described in the investment management agreement that defines LGIM's mandate. Fund manager performance is assessed against these measures. This ensures a continuous focus on avoiding downgrades and defaults while remaining invested.

Slide 20: There is a symbiotic relationship between the investment of assets on L&G's balance sheets and the management of assets for third-party clients. It's crucial for L&G to support a highly skilled, well-resourced team for its on-balance-sheet assets. Where on-balance-sheets need to evolve, then LGIM and LGR have been able to move together quickly. For example, moving to global fixed-income in 2006, rather than sterling-only, incorporating real assets from 2009 onwards, or our ability to work together to take advantage of opportunities presented in times of market stress.

Many third-party clients have found compelling the combination of high-quality fund managers, scale of operation, innovation and seeing that L&G has skin in the game. In return, third-party clients allow for a greater depth of capability and resource, with a scale that supports corporate access and understanding of market technical that couldn't be achieved by an on-balance-sheet capability alone.

Altogether, LGIM's global fixed-income team has 80 investment professionals, based in London, Chicago and Hong Kong, managing £135 billion of assets. Roughly have the assets are in buy-and-maintain mandates, with the other half in alpha-seeking benchmark-relative mandates. As an illustration of the global fixed-income team's success, 82% of mandates have outperformed over the past three and five years.

Slide 21: Real assets, led by Bill Hughes, have 79 investment professionals managing £24 billion of assets, with £19 billion in real estate and £5 billion in private credit, split across real estate lending, infrastructure lending and private placements. The team's well-regarded external capability was first deployed for LGR in 2009, with sale-and-lease-back and income-strip transactions, when it became clear to us that direct investment would become important for success in managing annuities.

The team's property fund outperformed an industry-aggregate benchmark by a notable 60 basis points per annum, over the last three years. Over recent years, the team has developed a broader direct investment capability for LGR,

covering a full range of private credit that delivers annuity-like cash flows with added security collateral and covenants. With a pleasing circularity, this broader capability is now in high demand by third-party clients.

Slide 22: LGIM's investment philosophy and process supports the defensive nature of LGR's credit portfolio. It is grounded in macro themes LGIM believe will persist, such as a secular decline in global growth, due to an ageing demographic and government fiscal burdens with the consequence of a shift to anti-establishment politics. From these themes, you can understand our sector positioning, with low financial exposure, no European periphery exposure and overweight in regulated utilities and asset-secured funding.

What may be less visible is the substantial bottom-up fundamental credit analysis, issuer by issuers, that sees the defensive positioning through the day-to-day, fund-specific fund-manager decisions.

Slide 23: As a result, I'm pleased, and grateful to LGIM, to be able to present such a dull chart of actual default losses for the LGR portfolio over the last ten years. We lost £25 million in 2008, and nothing since.

Slide 24: We should turn, now, to what happens to our IFRS results if we do have defaults.

Broadly, the credit reserve could absorb the defaults up to a certain level in a year, but this will reduce the release of prudence in the net release in future years. We have anticipated the level of absorption of the year at around £700 million – roughly, the short-term default reserve plus a year of prudence in the long-term default reserve. Beyond the level of absorption, the LGR profit in the year would be reduced.

Let's look at the smoothing nature of the credit reserve in increasingly severe scenarios. With £10 million defaults in a year, the £2.7 billion credit reserve would reduce by £10 million, and future net release would reduce by less than £1 million.

Slide 25: With £100 million of default loss in a year, the credit reserve would reduce to £2.5 billion, and future release would reduce by around £8 million in the following year. With £700 million of default loss, the reserve would reduce to £2 billion, and future net release would reduce by £58 million in the following year. These simple scenarios illustrate the smoothing impact of the credit reserve.

Slide 26: We have also looked at the impact on our balance sheet of a severe historical scenario. Over the past 30 years, the worst period for downgrades and defaults was over 2001 and 2002. The dark blue bars on the chart show the default rate in each year based on LGR's current credit rating distribution. The dark blue line on the chart shows the rate of downgrades.

I'm sure I'll oversimplify what happens, but the period exhibited significant stresses in two sectors, an emerging market defaults and a few large, idiosyncratic defaults. Technology, media and telecoms was worst hit, as the dot.com bubble, with debt-fuelled acquisitions and exuberant oversupply unwound. Airlines, post 9-11, were also heavily affected. Argentina defaulted with associated corporate downgrades, and finally, we had Enron in 2001 and WorldCom in 2002.

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Slide 27: We considered picking the worst 12 months in that period, but decided to go further and apply the whole 24 months as an instantaneous shock applied to LGR's current ratings distribution. The tables show the default rate by broad rating grade, and the percentage downgrades for A-rated and triple-B-rated assets.

This stress disregards any defensive sector positioning or any defensive stock selection decisions, or any ability to capture management action.

Slide 28: The default loss assuming a 40% recovery rate would have been just below £300 million, leading to a reduction in credit reserve to £2.4 billion. We reworked the estimated prudence in our long-term default provision, given the broader portfolio downgrades in that scenario, with future net release reducing by £46 million in the following year, which corresponds to around 3% of the L&G group net release.

Slide 29: We've also worked with the impact on the Solvency II balance sheet in that same 2001-2002, historical scenario. When applied as an instantaneous spread-widening downgrade and default shock, then L&G's coverage ratio would reduce from 180% to 150%. In that extreme scenario, including the most severe historical downgrade scenario we have seen, we would still have over £4 billion of surplus Solvency II capital before taking any management action.

I think that the 2001-2002 scenario is a robust test of the IFRS and Solvency II balance sheet, and shows both the prudence of our reserves and the strength of our capital position.

With that, I'll hand over to Simon.

Simon Gadd:

Slide 30: Thank you, Kerrigan, and good morning, everyone.

Slide 31: Credit risk, like any other risk on Legal & General's balance sheet, is managed within the first-line management structure, in this case, mainly LGR and LGIM. I'm going to provide you some broader context of how credit risk fits within L&G's overall risk profile and governance model, and how the CRO function, which I lead, sets the framework by which this risk is managed and overseen. I will also cover our approach to internally rating the direct credit investments, which is a key component of our risk-assessment process.

Slide 32: This chart sets out the main financial risk taken across the group, including the various forms by which we take credit risk, be that through investing in corporate bonds, lending against property assets or dealings with banks or reinsurers.

The pie chart on the right shows that credit risk is the largest risk by exposure on our Solvency II balance sheet.

My role in credit risk is, firstly, to agree with the board our risk appetite for credit risk across the groups, and the parameters by which we want to constrain the risk-taking authority of the divisions. Secondly, my team, otherwise known as the second line of defence, establish the policies, standards and processes required to manage the risk

within the agreed risk appetite. Finally, we oversee, monitor and challenge the business to ensure we are comfortable that risk-taking activity, and ongoing management, meets the policies and standards we have set.

The key principles throughout are to ensure we only proactively take risks which are rewarded, we understand and have the capability to manage, and we can tolerate the downsides.

Slide 33: Credit risk is covered by both the first-line and second-line governance structures. The Asset and Liability Committee for LGR chaired by Kerrigan will actively manage the risk exposures and decide where the reward per unit of risk best meets our hurdle rates.

The Group Credit Risk Committee, which I chair, is a subcommittee of the Group and Executive Risk Committees. This committee defines, in detail, and approves any changes to, the risk appetite, policies or tolerances for credit risk. We understand that despite the best endeavours of the first-line teams, credit exposures will not always perform as predicted, but to give you a flavour of the activity of the Credit Risk Committee, let me give you three examples of how we control the downside of different, unexpected outcomes.

Slide 34: As Kerrigan explained, it is important to remember what the unique illiquidity characteristics of our annuity liabilities means for the credit risk taken in LGR. We are less interested in changes to the price or spread of the asset; we're predominantly focused on the risk of the counterparty defaulting, so we lose some of the cash flows our ALM process was expecting, or the counterparty being downgraded, which increases the risk of default, and therefore the associated capital charge.

My first example is that we are exposed to the risk of an idiosyncratic downgrade or default, maybe due to fraud, accounting irregularities or sudden changes in the financial policy. To mitigate this risk, we hold a well-diversified portfolio and set single-name issuer concentration tolerances for corporates, banks and reinsurers. The tolerances will vary depending on the credit rating of the issuer and the nature of the impact of their default on our balance sheet or profit.

Secondly, there is a risk that a segment of the portfolio is jointly affected by an adverse shock at a sector or country level. Similarly, we control this risk by setting tolerances for maximum concentration of exposure at a sector or country at issuer level. The tolerances and exposures against the tolerances are actively reviewed to take account of changes in the external environment.

Thirdly, we recognise that downgrades and defaults are, to an extent, cyclical and, therefore, the second line conducts its own forward-looking assessment of emerging risks which may affect our portfolio. These have included the potential impact of Brexit, a stress in the European banking system or the potential impact of further falls in the oil price.

We feed the results into proactive discussions with the first-line risk-management teams as to whether we should adjust our portfolio to anticipate these risks. In particular, we monitor closely the overall average credit rating of the portfolio and the potential for downgrades to add BBB holdings under the scenario. This activity independently tests that the business has well-development mitigation strategies and contingency plans for a range of scenarios.

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Solvency II requires onerous capital requirements for lowly-rated credit assets, so it focuses management on mitigating downgrades and ensuring diversification.

Slide 35: As you all know, not all of our credit exposures have a public credit rating. For direct investments in private credit, loans or property-backed lending, we use internal ratings. Together with robust underwriting and securing the right covenants and other risk mitigation in the contract, the internal rating process is critical to the risk assessment and decision-making.

The Internal Credit Rating Committee sits within my second-line function, independent of the deal-makers. Its members have several decades of experience from the mainstream rating agencies and their methodologies.

Our rating methodology is consistent, wherever possible, with the public ratings agency methods. This is important as we use the rating agency's past default and downgrade data to calibrate our internal model for capital. The rating methodology and its execution by the Rating Committee is regularly externally reviewed to ensure it meets PRA standards for use with an internal model and matching-adjustment calculations. The ratings are closely monitored and regularly reviewed as the circumstances of the counterparty vary.

The rating process drives both the capital requirements and the decision-making, and therefore it's crucial it remains independent. The Credit Rating Committee will also review the ratings of large exposures to public-rated names, and will apply reductions to ratings where we believe appropriate.

Slide 36: The Brexit process and outcome is likely to be unpredictable, not helped by the events of last week. Together with many other economic or political events that could impact credit markets, we need to remain vigilant. However, the portfolio is well-positioned, diversified, and we have the key advantage that our ALM position means we can take our time to deal with shocks when they arise. We are never forced sellers of credit.

With that, I'll hand back to Jeff.

Jeff Davies:

Slide 37: Thank you, Simon.

Slide 38: So, you've heard all of the detail …

Slide 39: …and I just want to conclude. We've demonstrated the ways in which we have, very effectively, managed and continue to manage the risk on our credit portfolio.

We've experienced very low defaults over an extended period and continue to hold a prudent level of reserves.

Our balance sheet remains strong even in extreme credit scenarios with limited impact on the group's IFRS financials and dividend-growing capacity, and we have confidence we would be well-placed to continue to perform and capitalise on market opportunities.

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Slide 40: I'll now hand over to questions. Who wants to go first?

Andy Hughes: Hi. Thanks very much. Andy Hughes from Macquarie.

Jeff Davies: Andy.

Andy Hughes: Hi. So I can understand, the kind of focus on IFRS, is that largely because of transitional, or is that… why do you, kind of, focus on presentational IFRS? Because I guess I'm more interested in Solvency II, in particular the, kind of, breakdown of the matching adjustment by the bucket in the assets. Because if I take a very high, helicopter-level view look at it, so, what you're saying today is that, you know, the credit spread, as we know from the full-year, is around 180 bps on the back-book, 58 basis points of fundamental spread, the rest is the matching adjustment.

So I take that only 49 billion of assets, that's roughly about 900 million, so what you're saying is in any really stressed year, you're never going to lose the credit spread, so this stuff is just a free lunch. I'm not sure that I, kind of, understand the, kind of, relative high-level view, comparing those two numbers, so I guess what I'd like to do, if it's possible, is to go through the 120 bps matching adjustment and just work out where you earn that 180 bps. Is it an average across the portfolio, you know, where the stresses are in the business? Because I'm not sure this, kind of, gives me the kind of level of detail that would help me feel comfortable in a stress from the asset side. Thanks.

Jeff Davies: Okay, I'm sure Kerrigan and Simon will both have views on that one, but, I mean, in terms of question around focus, we give an equal focus, certainly on the IFRS and the Solvency II, both showing the impact on release of reserve and the earnings and then the impact on the solvency ratio and the quantum of capital that's left, the 4 billion. Yes, we assumed there would be some more questions on the detail of the Solvency II, and we'll take it that way. Kerrigan?

Kerrigan Procter: So, I think, just coming back to the point, and follow up on Jeff's point, the main questions that were asked after the previous sessions around the credit default reserve and some of the mechanics of that, so it's definitely… hopefully, I've given you some detail on that. On the Solvency II calculations, I mean, you've seen the figures there, in terms of that very severe 2001-2002 scenario, round about 25% of that 30% shift downwards from downgrade, really severe downgrade scenario, a huge shift downwards from triple-Bs to double-Bs and single-Bs in that scenario.

And you're right to say that some of that impact comes from reduction or limitation in the amount of matching adjustments availability for spread you can get, as those assets downgrade, and some comes from an increase in the SCR distresses on the… on the underlying assets. Andy, I'm not going to be able to give you all the detail that you asked for there, I don't have that at my fingertips, but we'll take the questions onboard and see what we can do either now or next time to deal with that in the future.

Simon Gadd: Can I maybe just add, just to make and clarify the principles of the Solvency II balance sheet. So you're talking about the allowance that we have for default risk on the base balance sheet, which is the own funds versus

the component of that balance sheet. That is supposed to represent the difference between our assets and our best estimate view of the risks on the balance sheet. Not a prudent view, it's supposed to be the best estimate view.

And what you can see, broadly, is that Solvency II are holding a best estimate view, which is set, predominantly by EIOPA through the fundamental spread, roughly equivalent to the provision that we set up in IFRS. So actually, in our view, quite prudent compared to past history. Then, we set up a capital requirement, separate from that, which is to deal with things going outside of your view of the best estimate, and we have to test that to the 1 in 200. So the scenario that we talked about is one of the scenarios that is used to make up our capital requirement. You wouldn't expect that to be within our base balance sheet, which is, as I say, supposed to be driven by the best estimate view of what we think is going to happen, and, in the case of Solvency II, is, to some extent, prescribed by the EIOPA rules.

Andy Sinclair: It's Andy Sinclair from Bank of America Merrill Lynch. Just two questions, please. Firstly, just, can you tell us a bit more about how you would actually expect to be reacting if you did get a serious default cycle, amongst other questions, if you did see defaults, if the provision started to get eroded would you allow that to be eroded or would you be looking to top that back up again to, kind of, similar levels to today?

And secondly, you mentioned that the mandate was switched, in 2010 I think it was, to minimise downgrades and defaults. Can you give us a little bit more detail on this and just how that ties in with the buy-and-maintain mandate? How often do you tend to rotate within the portfolio? Is that really only when defaults are seeming likely, or would you tend to rotate it if you saw the likelihood of downgrades in higher investment grade ratings? Thanks.

Jeff Davies: Sure, thanks. I'll start off on the first one, and then, these guys actually lived through it, so they will add a little bit to the first one, I think, Kerrigan in particular, in what we physically did as opposed to setting the balance sheet. And yes, Kerrigan's very well-placed on the buy-and-maintain. I mean, in terms of what we would be doing in a default, yes, there are caveats and assumptions in there that we've assumed that is the approach the board would take, etc, but as a management group, we're certainly comfortable with the level of prudence, the 2 billion as an underlying level of prudence that is required.

The 700 has been built up for historic reasons and, as illustrated, we're confident we could release that default reserve and that the 2 billion still show sufficient prudence over where our best estimate is on an ongoing basis. So we wouldn't necessarily feel that we needed to re-establish at that point in time. I think, then, in terms of other management actions and things we did, as I say, you lived through it.

Kerrigan Procter: Well, Simon lived through it, definitely, at the time he was running LGR annuities at the time. I'll kick off and I'm sure you can come in from both sides. Probably, Andy, if I come back to your second point, which somewhat describes what actions we've taken in that current stress scenario, and indeed things we have done. So, the switch of the mandate in 2010, before that it was… it was really constructed as a collection of benchmarks, so it was a benchmark-relative asset, with a philosophy of avoiding downgrades and defaults, which is very much LGIM's active fixed income philosophy, or has been for many, many years.

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One of the things that led to at the time, as you may recall, was benchmark-relative mandates naturally held a reasonable amount in bank debt, financials debt. And so, really, over 2009 and 2010, we reworked the whole mandate to line up agent and principal, so LGR being the principal and LGIM being the agent, to really get them working very closely together to continuously use their skills sets to avoid downgrades and defaults.

So the primary measure, if you think about the sorts of mandates, it's you win assets, people give you assets, you buy the portfolio of, on average, A-rated assets that you want at outset, and then you want people to maintain that investment yield because you've got to pay pension cash flows. So maintain that investment yield, maybe do a bit better if you can, but continually look to de-risk the portfolio.

So the primary measure the fund managers have, for any fixed income fund managers out there, this is a huge thing on their desk – is not a benchmark with an alpha-relative target, it's actually your target is to improve, in other words reduce the probability of default across your portfolio as measured by probabilistic measure of defaults and default losses across that whole portfolio. So every day, they're thinking actively, alpha-generating managers, with all the input, to say, well, I've got this portfolio, what could I continually upgrade to reduce my default risk provision, because that's how I'm assessed and incentivised, all those other things.

So what that really means is, firstly, they're agnostic about sectors, we have the sector overlays that Simon talks about, because we shouldn't be so arrogant to say we're always right but we have that sector overlay, but that underlying theme of keeping that sector diversified is an output of the underlying default risk provision. And what that means is, of course, that at any one time, if you talk to Anton, the chief investment officer or Tom Pavlik who runs our portfolio, they have a list of preferred bonds that they would continually look to move out of into bonds that they feel more secure while preserving the portfolio yield. So it's a continuous, if you like, list of… in order of things I'd like to remove to things I'd prefer to move into, as markets develop continuously.

It's a pretty low return over portfolio, about 15% to 20% portfolio turnover, so relative to the alpha mandates of a couple of hundred percent or more. It's a very low, kind of, shift from the list… that list of things we'd like to move out of into the things we'd like to move into. And you can see that over the years in terms of gradually moving out of banks to now having less than £2 billion in banks. Nothing in periphery, nothing in sub-debt. So those themes moving out of the portfolio from 2010 onwards you get to that position of where we are now, with a super defensive portfolio. Does that give you a bit of a flavour for what we're doing?

Greig Paterson: Morning everyone, Greig Paterson, KBW. Looking at slides 27 and 28, which is your 2001/2002 scenario. Three questions. One is, it's just a question if my understanding is correct here. We've got 260 of defaults and the annual reduction and the release is 46 and your duration on your annuity book is 12 years. So we're looking at a PV cost of £750 million roughly. Is that logic correct?

And the second question is, drilling into that number, a 3% reduction in the net release seems a bit light. If you look on page 27 you see the downgrades that are going on there. I mean, isn't it fair to say if you're looking at economic costs you also need to consider the increase in the risk margin? Because ultimately that's the market's view on the cost of carrying capital associated with the increased risk. So, 750 and then the lightness of your default adjustment.

And then in that context, since 2008 it's a question I've always wanted to know. What has been the economic cost in terms of defaults between now and then? Because it's not the miniscule amounts of defaults that you talk about. It must have been in the billions or a few billion at this point. I just want to try and get a feel for the actual true cost of your credit exposure.

Jeff Davies: Sorry, just to come back on the second point. You mentioned risk margin. We're talking there about the IFRS balance sheet.

Greig Paterson: No, I appreciate that. So what I was saying is I do appreciate what this is in IFRS and the PV should be around 750. I've just taken the default times the annual reduction and the release, times duration of 12 years. 12 or 13. So it gives you 750. That's the PV of the IFRS cost. The rest will go down through a variance that so much of your NAV will be hit by. And the second question is I'm then questioning the validity of the IFRS movement in reflecting economic value, because it's ignoring the increase in the risk margin associated with downgrades, and that 3% looks very light for 2001. And then the third one is in terms of economic costs, what's been the cumulative default cost since 2008. Since the credit crisis.

I think poor Kerrigan… They are all for Kerrigan. I think explaining the 46 answers the first question, and I think the 3% we understand.

Kerrigan Procter: Yes. So just to embellish some of the things I said there in the chart, just to make sure it's not… If it's clear. So 260 million. A certain amount of analysis went to get that figure, so that's straight off the default reserve absorption there. And then why that figure is a little bit higher than some of the previous scenarios is because of the substantial downgrades at that time. So we effectively, when we look at the long term default provision, we have an expected level of default for historical probability weighted analysis on our actual portfolio, and then prudence over that level. And the operational release or net release really shows the unwind of that prudence over the time.

And because there were more downgrades, so the expected default rate would have gone up, and so the gap for prudence is lessened and so that reduction in the release of prudence is that 46 million. So I think you've got the point there. Roughly 12 years, yes. I mean you've got a tail… As you know well you've got a tail, so there's an impact over life. And of course if LGIM… all that analysis relies on LGIM not doing any better than expected of course. Or the preamble was to say we've actually done better than expected through LGIM's expertise in the past, but if that was just taken through as LGIM do as expected then you see that impact on that 12 years duration so that's broadly right I think. On the risk margin, that didn't come into our IFRS… It's not a feature of our IFRS balance sheets in any way…

Greig Paterson: 750 is the IFRS hit. To me the economic cost is two to three billion, and it's because of the risk margin which is the market's interpretation of the existing costs of carrying high risk assets.

Kerrigan Procter: Well I think that somewhat comes down to the robustness of the Solvency II balance sheet and what you would do, and we're very comfortable with four billion of surplus and 150% solvency coverage ratios. So

that impact there, that Solvency II impact, incorporates all the dynamics of the Solvency II balance sheet with this, you know, 24 months of the worst period ever for downgrades, all lumped into a second and with no management actions, nothing there, that's the 150%. So that incorporates all that thinking and then the question is: Would we do anything different with that 150%? Would we do something different that would cost us something economically on top of that? Which we're suggesting we're comfortable with that 150%.

Greig Paterson: And then the last one is… Let's keep it on an IFRS basis. What's the cumulative negative variances associated with downgrades from 2008 to now. It will be in the billions I assume.

Kerrigan Procter: Well you will have seen… I'm just trying to figure that through. I mean, you'll have seen the actual defaults and you'll have seen the outturn over the years of PBT and Op Profit and its investment variance which will have incorporated all of the actions that we've taken over the years to get to where we are now, which is an A- rated portfolio that we're very comfortable with. So I can't break out what the precise figures are there for the economic costs you're thinking about, but it's all been transparent. You know, whatever's happened in terms of PBT has all flown through and you've seen it all visibly going from the 2008 portfolio through to the…

Greig Paterson: So to me that's misleading in a sense that you have managed your book well but it has had significant defaults over the period, and you can see it in the negative variances coming through.

Jeff Davies: So just on that, there is a figure Nigel and I have spoken about around that that we'd talked about. Put an example in last year. We were making a lot of money. You saw that in our results. Fantastic, record year. We therefore used some of that to increase the… Or reduce the credit risk within the portfolio. We spent roughly 100 million last year to just improving the credit position of the portfolio. But we certainly wouldn't have what's accumulated had we done around there. So as Kerrigan said, it's day to day business management of that portfolio, decisions made between LGR, between LGIM, when do we want to upgrade the portfolio? What do we think it looks like? Which of these list of names are we moving etc.? But as you see, that is the outturn of our IFRS results over the last periods, and it's been… It's absorbed within that and within what we've been able to achieve.

Oliver Steele: Oliver Steele, Deutsche Bank. So three questions. First of all, just going to 2001/2 scenario and the 150% solvency ratio. I appreciate it's 24 months all crammed together, but presumably this is just based on the credit side of the sensitivities? It doesn't include anything else that happened at the time. So I'm just wondering if you want to sort of comment on what it might have looked like with the remaining sensitivities added in. Secondly, partly to show I'm not being totally unkind, what are the sort of management actions that you would have taken to alleviate that at the time, since you said it was pre management actions.

And then the third question is really just trying to sort of get the basics in my head right. So the 2.7 billion provision, if there are no defaults, gets released through the P&L and into the solvency each year, and I'm sure we could have worked it out from the slides, but exactly how much goes above the line and below the line in the IFRS P&L? And where do you count all of that release in your Solvency II roll forward? Does it come through as organic capital creation or is it market variance?

Jeff Davies: The last one's quite easy. The release of the reserve wouldn't appear at all in the Solvency II, so it would just be… You would see whatever market movements where there were market movements, and we would obviously be breaking that out at the time. Because that's just a pure IFRS reserve. I know Kerrigan looked at the different…

Oliver Steele: Sorry, I thought you said that there was a similar reserve in the Solvency II?

Jeff Davies: No, it's not a reserve, it's just a marking up the calculation. So you recalculate, restrike your best estimate with a new downgrade, new matching adjustment, recalculate the capital. Kerrigan I know has looked at the other different scenarios, what has happened… Obviously he talked extensively about our hedging around interest rates and inflation, so therefore that doesn't add much value to show that they all moved and not a lot happened in the balance sheet. I mean, you have the sensitivities on those where we look at them. But, yes, the management actions, we do have a long list on those.

Kerrigan Procter: Yes. Yes. I mean just in terms, just to be precise, yes it was just the credit side. We didn't factor in the equity market downturn in that scenario, so you look at the equity figures on our balance sheet and the downturn over that period. I mean, the point of all that… it was a 24 month stress compressed into one assuming we did nothing. We had no skill set in picking the sectors, the issuers and did nothing over that 24 month period. But it's purely credit only. It was purely isolated credit only, it wasn't the full 2001/2002 everything that happened over that period with equities.

In terms of management actions, I mean just in terms of some of the figures that we worked through. Of course over that 24 month period you would be having this live mandate in place where you're continually looking to move out of bonds that hopefully before they downgrade, but indeed after they've downgraded potentially. But that continual mandate of recycling those assets into your broader A- portfolio. And the effect of those management actions that we thought about over the two years would probably end us… Rather than 150%, they went more like 160% while still denying that LGIM had any skill sets particularly in managing that better. So that's the sort of first order of management action over that period would be of course the active portfolio management that you're looking to apply.

Jeff Davies: Yes. Maybe just add, particularly in that stress you can see there's quite a lot of names that get downgraded to sub investment grade and actually even down to sort of single B and triple C type levels. Solvency II treats those very painfully, so you take both the spread widening effectively. You have to take that through your balance sheet and your capital requirement significantly increases. So you've actually taken the pain for trading out, so you could trade out of those assets for no further downside but actually significantly reduce your capital requirement if you reinvested those proceeds in, yes, that's the typical A rated name. So there would be some fairly obvious management actions that could improve that number quite materially.

Fulin Liang: Hello. This is Fulin Liang from Morgan Stanley. I have two questions, please. So first of all, looking at scenario six, you obviously describe this scenario as moderate spread stress. I was wondering whether you've done a stress where actually the spread widening is much higher than the 50 bps, 100 bps here, and wondering actually

what's in your capital requirement on the Solvency II. What's the scenario you assumed to calculate the capital requirement?

And secondly is I'm just curious, given your track record in managing the credit portfolio, would actually re-risking your portfolio something on the table? Because I noticed that you got 26… 23% still in the guvy but you have very excellent capability in managing credit portfolio. So just curious.

Jeff Davies: Just on the last one, I'm pretty sure Simon will want to talk about the first one. On the re-risking, I think we took quite a lot around wanting to improve and increase the proportion of direct investments, lifetime mortgages etc., back in the portfolio. That would obviously use up more of that. You may or may not consider that re-risking. It's certainly balanced against the equivalent corporate bond rating. But luckily Kerrigan's so successful in writing new business that we have to manufacture more and more of those assets to increase the proportion of the total in force at any point in time. So, yes, the direction of travel is to increase that proportion, and you may or may not call that re-risking, but certainly we think that gives a better risk adjusted yield for the portfolio and optimises between IFRS and Solvency II overall.

Simon Gadd: Yes, so you're right to say there have been much worse times in history than 2001/2 for spreads. The worst time in history was 2008/9. So in our capital modelling we assumed that we had a combination of 2008/9, for spreads, combined with 2001/2 for downgrades, because actually that is the worst time in history for downgrades. And effectively we then assume that we have to trade instantly, pretty much, or within I think it's a 12 month timescale out of all of the downgraded assets even though their spreads in that scenario are really, really wide. And effectively take the full pain to effectively come up with the capital allowance that we make on the balance sheet. So now, that's irrespective of what we actually would do in those circumstances, and going back to the previous question, in 2008/9 we took our time. You know, there were some stocks that it was the right thing to do, to come out instantly, but actually there were lots of stocks where the spread was artificially inflated and we took our time, waited for things to normalise before we took any action. So, yes, it's the combination of 2008/9 and 2001/2 that makes up our capital.

Jeff Davies: And I think that's important around the prudence on the IFRS and the plus more than four billion that we're saying in those scenarios around Solvency II, but it allows us to take our time. We're not forced sellers. And to be able to capitalise on new business opportunities, which is also what we did after 2008/2009.

Andrew Crean: Good morning, it's Andrew Crean here for Autonomous. A couple of questions. Firstly, can you tell us on an IFRS basis what your normal default assumption is on credit… on your sort of A style credit portfolio, and what the equivalent would be on your direct investment. What I'm trying to get to is, net of default assumptions, what is the yield on the credit portfolio versus the direct investments? And then secondly on your trading, the billion of BPAs looks quite low relative to an expected run rate. I realise this is lumpy. I realise it's second half bias. But what's been going on in the market? Because it does look slow for everyone.

Jeff Davies: Sure, okay. I mean, on the first one, I know we've previously quoted a sort of a 19 bps, 20 bps across the portfolio as the best estimate within what was the embedded value assumption at the time. I'm not sure we've ever

broken that out. I'm just checking. I wasn't here all of the time. I don't think we've broken out between the different asset types. So I wouldn't have that at my fingertips in terms of what the assumptions are. I know what underlies it in Solvency II would be IFRS but that's slightly different for those assumptions.

Kerrigan Procter: From that implicit number, the 19, 20 clearly varies by credit rating of the asset, so it all depends on the mix of the assets in the direct investment portfolio versus the mix of assets in the trading portfolio.

Jeff Davies: Oh, yes. That's the 55 basis points. So we talk about that, but again across the whole portfolio. And then in terms of volumes?

Kerrigan Procter: Just to finish that point, so below the line IV about 100 million ish which is the expected defaults and then above the line call it 150 million ish in the prudent release, in the net release. So that's kind of the impact of the default reserve in those two elements of the lines. So you've got the unwind of prudence 150, and you kind of work out this combination of the short term reserve and the long term reserve and then the expected defaults at 20 bps ish. Lots of caveats around that, then that's the figure at the bottom.

The DI portfolio is broadly similar, same weighted average rating factor, particularly when you add lifetime mortgages, but what we really expect to see with that is if anything got into problems on a much better recovery rate, so hence all the security, collateral, covenants that we're seeing there. I've got a figure in my mind. I don't know what we've disclosed in terms of potential difference in recovery rate, but you can kind of look at bank debt. The difference between senior unsecured, which most of the debt will be in senior secured which most of the direct investment will be structured a little bit like senior secured. So look at the recovery rates there typically in the banking market being 40% compared to loss is going to be about 40% compared to 60% would be typical. So we'd be looking at something like that or better as a senior secured type asset on the direct investment side.

So the yields we look at… I need to be careful for competition reasons, but bearing in mind if you had a senior secured asset compared to a senior unsecured asset and you're getting the same yields, you'd take the secured because we're not worried about illiquidity risk. But we typically look at a 50 to 1, 50 over the equivalent, more liquid traded assets. That kind of level in terms of the yields we're looking at… Yes, credit. Yes.

Just in terms of trading volumes, so we're looking at… Just to put it in context, over one billion. 1.4 billion year to date on the bulk side. If you recall, last year we wrote 3.3 billion of UK bulk annuities. Aegon deal then three billion on top of that, but 3.3 billion of UK bulk annuities over the year, so we're certainly comfortable with the type of deals and the volume of deals. It's certainly true… It seems to be true that… Well, if I characterise the UK market relative to the US market. In the US market all the action seems to happen in Q4. It felt like it was more orderly across the year in the UK in previous years, certainly rolling back a few years.

It does seem to be more H2 weighted type of business over the past few years as people have this natural cycle of wanting to get things done by end of calendar year and there's a trusty cycle of strategic review in the start of the year, go on the summer holidays and come back and want to get something done. So there's real evidence of something seasonal in terms of H1/H2 developing in the UK bulk market. Don't take that as any promises for what

will happen in the second half of the year. There's plenty of pipeline out there, but we've all talked many times about it being lumpy. But we're very comfortable with the deals we've written to get to the roughly 1.4 billion so far this year compared with last year.

David Bracewell: Hi, it's David Bracewell here from Redburn. Just one question, and it's on the non-traded portfolio in a kind of a default or downgrade scenario. I'm just wondering how… what process you go through in terms of rating that kind of asset portfolio there in terms of because clearly in a traded portfolio it's clear what's happening there in terms of defaults or what the market perceives. I'm just wondering what the internal process there is in terms of downgrading for example the lifetime mortgage portfolio etc. How that works and what kind of flexibility you might have?

Jeff Davies: I mean, Simon can at the risk of repeating, but certainly that was some of the area where it's a fully independent process. That is fully reviewed. We obviously did that post the Brexit vote last year when there was discussion around property etc., and the linkage to that. So those are constantly reviewed on an ongoing basis and I think Simon will be happy to talk about that.

Simon Gadd: Yes. I mean, it's an active part of the management process, so the internal rating committee at least a yearly, but obviously if there's any events that happen to a particular name then they will review the rating. Effectively if they feel it's now distressed then they will reduce the rating. That effectively means we have to start provisioning more within both the reserves and in the capital requirements. And then clearly they'll be working with the first line team to see whether we're getting to the point where any of the covenants are starting to bite, then we will start to get actively involved in the management, potentially, of that asset. And in the most extreme situation, obviously we're involved in the work out and potentially taking ownership of any security that we have. But it's, yes, a very active management process. It's fair to say we haven't got many assets in that situation, so we haven't had to do that very often at this stage. Maybe, Kerrigan, you can pick up the lifetime mortgages, yes?

Kerrigan Procter: Yes. On the lifetime mortgages, similar process. So we have the portfolio of our lifetime mortgage loans to make the matching adjustment efficient. We've structured them in a special purpose vehicle then issue notes out of that vehicle. Those are rated predominantly over 50% of the notes are triple A rated, then you've got double A, single A and then triple B tranche of those notes that we issued from the SPV backing the lifetime mortgages. All those notes go through the same internal rating process. We took a lot of advice externally on how to rate those and the same internal rating team puts those ratings on through that same independent process.

Jeff Davies: Interestingly that's one of the management actions we have. Okay, the economic risk hasn't changed, but we could put more assets into one of those SPVs to maintain a better Solvency II position, because we could maintain the ratings on the notes that we've created internally. So that does give us again extra flexibility, and none of that is reflected obviously.

Alan Devlin: Thanks. Alan Devlin from Barclays. A couple of questions. Just to follow up on the direct investments. As you do increase the proportion of your investments in direct investments, how does that change these stresses? Is there any meaningful change or is it all rounding? And how actually did you stress the direct investments in your

2000/2001 analysis. And then second question, on your experience from 2008/2009, were you able to trade out of the kind of securities you wanted to trade out of or did the market just close up and complete the illiquids and you're stuck with them? Thanks.

Kerrigan Procter: Yes, so in terms of the DI. I mean, really for the 2001/2002 scenario all we did really was take the credit ratings distribution of the entire portfolio, including the direct investment, and took the Moody's transition matrix from 2001/2002, multiplied them together and just applied that to the ratings of the portfolio. Looked at the downgrades and applied a 40% recovery to that. So it was a very naïve test, just to make it a completely hair shirted test of assume we had no skill whatsoever, this is just what would have happened.

Alan Devlin: You didn't assume higher recoveries?

Kerrigan Procter: No. No. Which is exactly the point. Thank you for pointing me in that direction. Of course as we move into direct investment with its kind of senior secured status more than senior unsecured with expected better recovery rates by design of covenants and substantial collateral and security that we have there, you would expect a better recovery rate. So default losses there. Given the types of assets that we're looking at, some of the infrastructure lending and some of the structures there, you might expect stickier or less downgrades but difficult to judge that on evidence at the moment. Certainly may be true for infrastructure lending, and I think you could argue that, and certainly EIOPA did argue that, and that's yet to come in in the UK. So, you know, I think there'd be an argument there for dampening down the downgrade stress as well, but we didn't allow for any of that in the portfolio. Clearly as the DI portfolio develops and grows then we would argue that there's additional robustness there.

Simon Gadd: And, yes, 2008/9 there were names that you might have wanted to trade out of that you couldn't. But the fact we were never forced to trade out was a key advantage for us. So we didn't have to sort of participate in fire sales of assets effectively. So a lot of names we held onto for a long period of time. Again, most of those assets we were still getting the income that we were expecting. The coupons were still being paid. It was just that there was clearly a risk, or a heightened risk, of default. But actually it was quite interesting to see, an awful lot of those names that got very, very stressed in that period recovered very nicely and it was the right thing to do, to hold onto those names. So, yes, that flexibility we've got as to when we trade is a key advantage.

Jeff Davies: Just a couple of more questions?

Colm Kelly: Thanks. Colm Kelly from UBS. Just following up on that flexibility point. To what extent can you hold for a long period of time, given the restrictions around the matching adjustment and the need to maintain the risk characteristics of that portfolio to match the liabilities, because that's something that the PRA specifically states. So that's not something that would have been there in the past, necessarily, so to the extent that that's changed and also the ability to actively trade in and out of assets, can you just explain how that might have changed with the process around that, given the restrictions around the matching adjustment portfolio?

The second question, so you obviously have shown the percentage of downgrades and the stress. If I think back to that scenario in 01/02, there was probably as many bonds that were withdrawn in terms of their rating as downgraded, so I was just wondering within the calculation how you've allowed for those bonds that have been withdrawn, not just downgraded. Thank you.

Kerrigan Procter: So on the flexibility point around the matching adjustment. I mean, you saw from the charts how closely matched we are on physical assets. Ties up a bit with swaps to make it really tight across the curve. So long as we're holding those assets and the cash flows can come through then we'll still be very tight against our matching adjustment tests that we have to fulfil for the PRA, so there's no expectation there, given that tight ALM match. Which is really why we went into the ALM point as a precursor to the credit point. It's really important to understand we're not forced traders in any point because of that match, so we feel pretty confident there. Of course, moving on to your second point, we may still want to trade out of those because we may have future credit concerns or, you know, possibly want to take some management actions on those. But definitely not forced to trade.

The point around the mandate, and if we're really going in to great detail about this buy-and-maintain type portfolio. It's almost exactly… we didn't know what the matches rules would come out as, but it's almost exactly what the PRA specified. We'd envisaged that because it's the appropriate thing to do for that sort of portfolio. So when Solvency II came in with those requirements around matching adjustment compliance for trading etc., the only change we needed to make to that mandate was to document the reasons for changing assets. Nothing else needed to change in that mandate, because it was exactly what you should be doing for a downgrade and default aware type of mandate. So it hasn't felt like it's constrained us at all.

Colm Kelly: To follow up on the withdrawn question…

Kerrigan Procter: Apologies. Sorry… Sorry… Sorry about that. So we just literally took the Moody's transition matrix from 2001/2002, multiplied them together and applied that as the stress on the overall ratings portfolio. So to the extent any withdrawn ratings don't apply there, they won't apply in this scenario. So it was just that straight…just a really transparent, naïve test so that you could all recreate that yourselves if you so wished. But it's exactly that. Two very visible transition matrices applied to the rating distribution.

Andy Hughes: Hi, Andy Hughes from Macquarie. I guess one statement and two questions. I'm a bit surprised that 50% of the equity release portfolio has a higher rating than the UK government. I would have thought there would be a UK government cap on any equity release assets in the UK and you couldn't rate any triple A on that basis. The questions I guess are on the 150% after 2001/2002 scenario, I appreciate the comments that I guess several people have made that it doesn't feel like a particularly onerous stress, but clearly in that scenario the business is more sensitive. So to say you have four billion of surplus, clearly the scenarios and sensitivity tests clearly all go through the roof. So I would imagine that the target range which you work to would also go up if you didn't take any management actions. So how do I know that 150% in that scenario is enough money to pay a dividend?

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Jeff Davies: Just on the first, on the observation, we didn't say any individual equity releases are triple A rated. What we said is if you restructure it and put enough security in there, you can create notes within a structure that can be rated triple A, because there's lots of loss absorbency within that SPV. I mean, you could make any asset triple A if you put enough of it in there and only put a very small note out, because you're covered in the loss absorbency of all the others. That's the sort of thing that obviously forms part of our internal model, has been through thorough review by the regulator and they're obviously comfortable with how that flows into our matching adjustment portfolio, how we've modelled that in all the different stochastic scenarios.

Andy Hughes: So the UK's downgrade wouldn't change this rating?

Jeff Davies: Not the ratings within an SPV like that. I mean, we would look at what's the performance of an equity release portfolio on the back of a ratings downgrade but, you know, it shouldn't have an impact… It will only be HPI modelling and everything else that flows into it. It doesn't impact it. I mean, in terms of the four billion, I mean we picked in conjunction with many people in the audience that we discussed the 01/02 as the worst downgrades we've seen. Pretty bad defaults outside the 1930s, and the worst impact on investment grade portfolios certainly, and it feeds into our model.

We had the four billion. Yes, there will be sensitivity. You need to be careful about capital on capital. We're already talking about us replacing 1 in 200 stressors and calibrations on top of a 1 in 200 event starting, and we're still saying we're at 150%. So I think we'd be pretty confident at that stage. We're never going to say under before the dividend looks okay, but you would think that 150% solvency in a situation like that is a very robust position to be in. We would look at the sensitivities. They wouldn't hugely balloon. There would be other actions. And of course there would be a whole load of management actions that we've talked about. But don't forget we have the matching, we have the interest rate and inflation matching that we already have there. We'd look at where are we in terms of sensitivities of further surprises at that point in time and look at how the other parts of the balance sheet have moved. But 150%...I mean, I think the important number is over four billion of surplus. I mean, effectively saying you could withstand the same type of event again after a 1 in 200 is a pretty large amount. I don't know if there's anything…

Kerrigan Procter: No, I think you're right. We're talking about 12.5 billion over 8.3 billion ish, to get to the 150%, that four billion plus of capital… We're really comfortable, that's really substantial.

Jeff Davies: And having taken no management actions. Maybe… Anyone else? One more? No?

Greig Paterson: We've been talking about the Solvency II model under scenario six. Your S&P credit rating double A is a 1 in 10,000 event versus the 1 in 200 event, and the risk is you have a downgrade in your financial strength rating and there's a knock-on effect on your business model. The question I'm trying to understand is how would the S&P model behave and how would your financial strength rating behave in under scenario six. Elephant in the room.

Jeff Davies: It's a good question. I think you would probably have to ask them how their model moves in that scenario. But obviously we went through the 2008/2009 and withstood that very well. I mean I think, as a starting

point whilst there isn't a direct correlation between Solvency II and the S&P model, I think if we're holding 150% solvency after an event like that, we'd be pretty confident of having very positive discussions with the rating agencies.

The only good thing I can say about these blinds going off is it means it's very sunny outside. It must be a really nice day. Anyone else? Shall we call it a day? We'll be around anyway, and there's bigger brains than me to answer some of these questions on Solvency II as well. But anything else? Thank you very much for coming along today, and thanks again for input along the way. Hopefully we've answered some of your questions, many of your questions, and we're happy to follow up because I know there's a lot of information there. Thanks a lot.